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# AMERICAN BEE JOURNAL

JANUARY, 1928

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TECHNOLOGY & SCIENCE



WHEN PRICE CUTTING HITS HOME—  
F. V. FAULHABER

AROUND THE FINGER LAKES  
OF NEW YORK—  
G. H. CALE

DISPOSAL OF CAPPINGS—  
MORLEY PETTIT

THE RACES OF BEES—  
PH. J. BALDENSPERGER

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(See American Bee Journal, March, 1925, Page 113)

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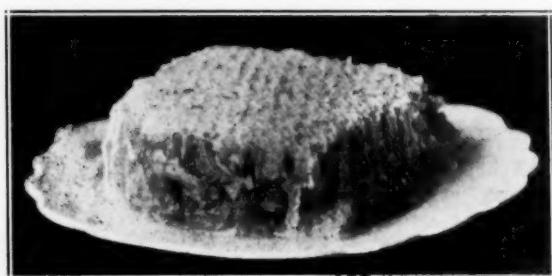
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Hamilton, Illinois

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### Our Cover Picture

This month's cover shows four loads of equipment to assist the beekeepers in the flood district of Louisiana to reestablish their apiaries. The worst flood in the history of the lower Mississippi Valley completely destroyed the apiaries of many beekeepers in that region. The State Department of Agriculture has made good use of the fund raised by sympathetic friends in more fortunate localities. Bees, queens, hives, foundation, etc., have been donated from many sources. These are being used to assist the beekeepers in the flood area to get started again, each being provided with a few hives of bees.

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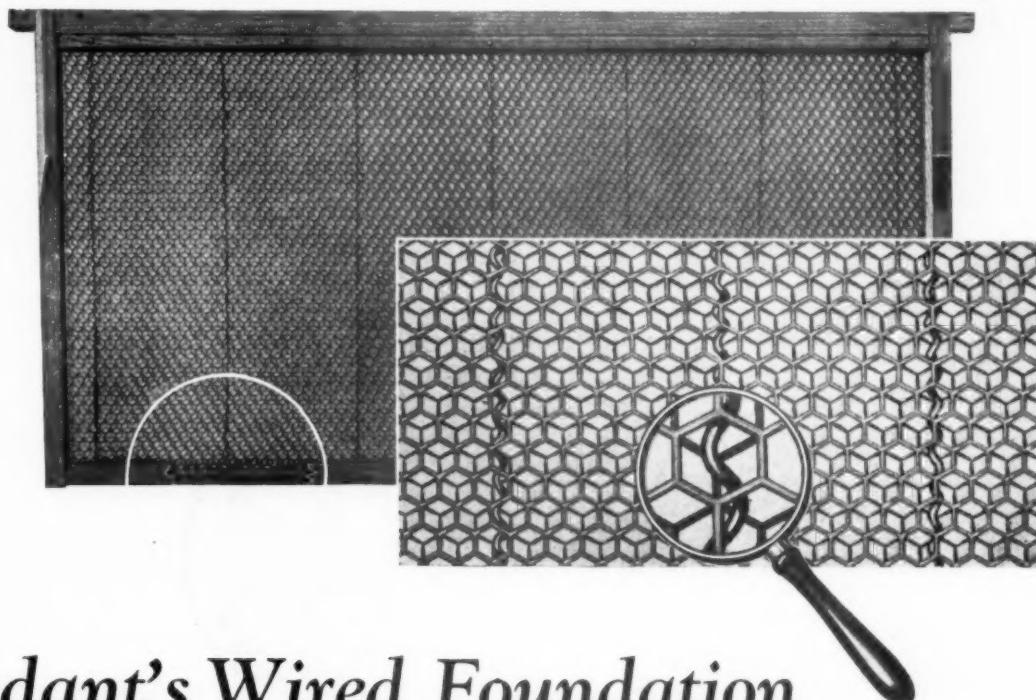
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**American Bee Journal**

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Hamilton, Illinois



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All of these words are direct from the letters of users in all parts of the world

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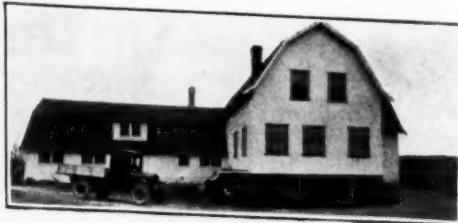
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# AMERICAN BEE JOURNAL



Vol. LXVIII—No. 1

Hamilton, Illinois, January, 1928

Monthly, \$1.00 a Year

## When the Beekeeper Starts Cutting Prices

The Matter of Quality and All Other Positive Factors Pale Into the Background When the Honey Man Concentrates on Prices — Worry and the Way to Failure, the Fate of the Price Cutter.

By Frank V. Faulhaber

If anyone finds business difficult going it assuredly is the beekeeper who cuts prices. For him, price-slashing may be the governing impulse in the endeavor for business, overlooking all the while that the customer—and this is true particularly of the discriminating one—is not so much interested in prices as in a quality product, in the honey itself. Why does the prospect query about honey? Is it because he is interested in prices? No; he is interested in honey. To him, indeed, price is the secondary factor, if it enters his mind at all.

Why, then, should the honey producer be so much concerned with the price problem? Why will not he, instead, concentrate on his product, striving to improve it, present it in more attractive picture? Why will not he try to get customers and prospects interested in the honey itself, rather than in the prices? The honey consumer does not buy honey because he likes low prices; No; he likes honey; he wants it; he needs it. And, be assured, he is not going to lean so happily against the price-cutter's product as that individual would wish. He is not out for a questionable product. He is not scouting around for the lowest-priced honey. He realizes, usually, that too much danger lies there.

The beekeeper naturally wishes to receive for his product all that fairly should be his. But, yet, the business is not there. Finally he nods to temptation; the long-contemplated cutting takes place. Now there are hopes of increasing trade satisfactorily; and there should be a goodly percentage of business diverted from competitors. So this beekeeper fondly wishes. Yet, hopes do not always materialize as painted.

For a time a little extra business

"The customer is not so much interested in price as in a quality product, in the honey itself. He is not out for a questionable product. He is not scouting around for low priced honey. . . . It is only that beekeeper who bends himself steadily in the interest of quality who holds the confidence of his customers and whose business really can be said to be successful."

may result. Still, it is unsatisfying, not enough. Then the worried, price-cutting beekeeper finds himself in the same unhappy position; likely once again he must cut prices—that is about the only way out. That way lies failure.

All the time this beekeeper is thinking, thinking of one thing—Prices. Prices! It amounts almost to a fetish. With him it is the one ruling principle. He tries to prop up the illusion that all that is necessary is to hold out low prices, lower than the next beekeeper, then all will be well; people will fall over themselves in their eagerness to buy his honey. Meanwhile such matters as quality, service, salesmanship, advertising, and similar sales-developing elements, pale sadly into the background. From him these receive not the slightest consideration. They are, in fact, lost sight of altogether. And your customer, and your prospect—are they, too, likely to lose sight of them? Are they likely not to appreciate what is being done by other, more progressive beekeepers, in the very same community? Are they likely to pass by the beekeeper who steadily is producing a quality honey,

steadily endeavoring to improve same, steadily giving better service, steadily making it a pleasure to do business with him, steadily advertising his work in a positive way? There is but one answer.

Yes; nod in concurrence, as you must, Mr. Price Cutter, and hang your head in shame. It must be conceded, face the problem any way you will, that the price reducer cannot possibly hope to succeed as he so eagerly hopes and desires. The beekeeper whose credo is to sell cheap bothers his head not a tittle with the many details important to successful honey producing and honey selling. And these are details that cannot be escaped. There are your beekeepers paying thorough attention to all details in any way relating to successful honey production and selling. All that is something not for the price cutter. He cannot be troubled with details, important though these be, for these would entail on his part more time, effort, expense. No; these details must be blanketed; the main object is to bring out a low-priced product.

The more the price cutter concerns himself with his main purpose, the more noticeable his troubles become. They stand out; they cannot be denied. And your Mr. Worried Price Cutter regrettably finds that something more must be done. His worries have not yet ceased. To the contrary, they have but begun. He finds it desirable, albeit perhaps reluctantly, to flag for business with low price as the bait, at the same time paying anywhere near reasonable wages to the employees. Therefore, more price cutting. This time it hits the beekeeper's helpers, and it hits them hard.

The harried beekeeper cannot hope to go on this way and still stay in

business. For that reason his helpers must share his troubles; they must be agreeable to a lower salary.

And who of the assistants are the ones unagreeable to pay-envelope cuts? Are they the newcomers, the tyros, who have yet much to learn? Or are they the individuals who represent real experience, and who feel that their knowledge and abilities are worthy of real recognition and tangible response? Here again there is but one answer. Your unhappy, your very unhappy beekeeper is finding his very best men making sudden and regretful departures; only the novices, the unexperienced, remain behind.

There is a wall of certainty surrounding the worried beekeeper now; home it comes with full force that he can no longer keep reasonably paid help. He can no longer hire the really worthy worker; he cannot be on the outlook for experienced men, for he cannot hold out to them reasonable pay, nor promising prospects for the future.

To the contrary, he must take what he can get, and be glad of it at that. It is absolutely imperative that he take on only the cheap type of employee, whatever their abilities represent. Looked at from any angle, this beekeeper's helpers really cannot be considered as helpers. Too often they are a hindrance, in no

sense of the word assets. Here your Mr. Price Cutter is burdening himself with more hard luck.

And how, pray, can this beekeeper hope to maintain a quality product, if that is at all possible, unsupported as he is by experienced bee men? How, indeed, can he hope to make favorable impression on those customers whom he does manage to lure by reason of his low prices? You can attract some people with low prices. But, it is a tall question, can you hope to hold these people with a questionable product? Much room for pondering here.

The beekeeper who places his all on low prices is never the one going out of his way to improve the product and its presentation. He may have the most wholesome honey, yet he cannot go to the expense of buying neat, attractive containers, properly to present customers and prospects. This phase of his business, in fact, is sadly neglected. He is constrained to skimp and scrimp wherever he can, however his honey and business unknowingly to him may suffer. Beautiful, modern containers and packages are decidedly not for him; they are not going to help him develop more and better business. These are for the more foresighted and progressive beekeepers.

In the price reducer's experience

it is a thought unheard-of to engage canvassers or anyone properly to represent his product. Such procedure would entail expense, and that is a gesture which this beekeeper must discourage. He cannot at all keep digging into his pockets in the interest of suitable representation. When he does engage anyone to go out and sell for him, it is done so grudgingly, oftentimes as a last resort, yet all the time in the furtherance of his low price policy.

Whatever advertising this beekeeper does is usually of a very negative nature. No bid is made for the better class of customers. It is not intended to attract the discriminating trade. No; your price cutter will take business, come from where it will; the main and only object is to turn sales. And it is a practice to which this beekeeper constantly must bend himself — his character of business is not the kind destined to develop a steady class of satisfied repeat customers. He must constantly look for customers anew, always harping on the price element; that is his one, saving feature, and it is a very precarious feature.

It never occurs to this type of beekeeper to bring out, and forward, the many undeniable merits embraced by honey. Never into his mind come the various positive possibilities offered by honey. No thought is given why customers and prospects should be interested in his honey, not in his prices. So far as he is concerned, there is not a suggestion relative to quality. No; it is always price, low price, and still lower price, damaging however it is to him and others in the business.

Mr. Price Cutter, about face! Worry no longer about your low prices. Now a turn for the better. You are out to supply a quality product, in a quality way, from A to Z. Let your honey be known, and asked for, by its brand—not by its price. Price does not make indelible impress. It is your honey, the quality it represents, the service, the experience. It is the better product, offering real value, for reasonable price, that draws, favors, impresses. It is only that beekeeper who bends quality, making a still better product, who holds confidence of customers and who receives the best prices, whose business really can be said to be successful.

## More About Heartease Honey

Mr. Leubek's letter about the quality of heartsease honey, in the December number of this Journal, seems to have aroused considerable interest. A sample of light colored honey from C. L. Pinney, of LeMars, Iowa, has been received by the

## A Live Wire From Missouri



Clay T. Davis is Secretary of the Missouri State Beekeepers' Association, and incidentally he sells Davis Honey. Here he is, Ford delivery truck (one of the obsolete kind) and fixin' clothes.

Spoofing aside, Clay is a hundred per cent go-getter, and Missouri beekeepers are blest in their Secretary. Perhaps a fellow can't help being that way when he is tied up for life with such a gentle lady as Mrs. Clay T.

writer, together with the following letter:

I note your discussion of hearts-ease honey in the December number of American Bee Journal. In the past years I would have fully agreed with you as to its color and flavors, but this year the color is golden and the comb as white as clover, with a very mild flavor. I have produced this year about fifty sixty-pound cans of extracted and the same number of cases of comb from heartsease, and it is very uniform in grade. I am sending you a sample. In grading my comb honey, it was often necessary to hold the sections in front of an electric light to distinguish between the clover and heartsease. I have considered this honey sweet clover three-fourths and heartsease one-fourth to one-eighth, blended by the bees, but sweet clover granulates in thirty days after extracting, and this honey is now over three months in the cans without any sign of granulation. I will send samples of comb and extracted, as I am very much interested in this subject, and would like to hear from you further. In regard to soil, there is very little difference between soils in Plymouth

and Cass counties, Iowa, and we have here no fall flowers except hearts-ease. I am wondering if the weather or temperature would have any effect in this case. We had a cold, dismal August up to the 20th, and from then to the 20th of September it was exceedingly hot.

I have finished my sixty-fifth year as a producer of honey. Am seventy-seven next month and going strong.

With kindest regards, I am,

C. L. Pinney.

Mr. Pinney's letter requires some other explanation than that given in Leubbeck's case for the difference in quality of the honey. The soil where Pinney lives is not very different from that of Cass county, Iowa, where I formerly lived. The fact that he formerly harvested a dark honey from this same source makes one wonder whether his first guess—that of a mixture with sweet clover—may not be correct. The honey he sent is light in color, quite similar to western Iowa white Dutch clover in a normal year. The heartsease flavor, however, is decided, much stronger, in fact, than the sample received from Indiana which was discussed last month.

There is always a question as to whether the honey in all cases comes from the same species of flowers. There are many different species of smartweeds, or knotweeds (*Polygonum*) to which the name heartsease is applied when the honey is harvested. *Polygonum Persicaria*, a species introduced from Europe, which has become naturalized in fields and moist places over a very wide range of country, is the one usually credited with the greater part of the heartsease honey which goes to market. The bees work just as readily on several others of the genus, and no information is available as to the quality and yield of honey from the various species.

It seems quite probable that Pinney's bees worked on the same species from year to year. Just what factor is responsible for the variation in quality remains to be explained.

F. C. P.

As regards granulation, late harvested honey granulates more slowly than early harvested honey of the same kind, especially if it is very ripe; for it is not always the ripest honey that granulates first.

C. P. D.

## New Zealand Field Day at Ruakuru State Apiary



Photo sent by A. H. Davies, Hillcrest, Hamilton, N. Z. In center of front row are: A. B. Trythall, Apirist, Ruakuru State Farm; J. Rensoul, Managing Director of the New Zealand Honey Producers' Association and Chairman of the Honey Control Board; A. E. Earp, Chief Government Instructor; Mr. J. Munro, Manager Ruakuru State Farm; T. H.

Pearson, President Auckland Branch, N. Z. Beekeepers' Association; T. S. Winter, Government Apiary Instructor and Grader; G. V. Westbrooke, Government Apiary Instructor and Grader. Mr. Davies, Secretary of the Auckland Branch and President of the National Beekeepers' Association of New Zealand, is seated on the ground between the two ladies.

They do things in New Zealand. No country surpasses it in the extent to which the beekeepers are organized to take care of their interests. One has but to read the titles of the positions the above gentlemen occupy to get some idea of the direction in which their organization works.



Established by Samuel Wagner in 1861

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Entered as second-class matter at the Postoffice at Hamilton, Illinois.  
C. P. Dadant, Editor; Frank C. Pellett, Associate Editor.  
Maurice G. Dadant, Business Manager

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### A Happy New Year

Once again we extend to our readers good wishes for a New Year. The year 1927 brought to the beekeepers of a wide area in the Middle West a bountiful crop of honey. We hope that 1928 will prove as good.

In spite of adverse business conditions, low prices for agricultural commodities, and commercial uncertainty, here, in America, we are pretty well off after all. We have only to compare our lot with that of others in distant countries to find much to cheer us. Nowhere in the world's history has the common man enjoyed so many luxuries as we do today. To drive an automobile, own a radio and enjoy the luxury of electric lights, hot and cold water and furnace heat in some countries would place a man in the class of the rich. Thousands of working men and farmers in America enjoy all these things and more. While many are in debt and find it difficult to meet their obligations, few are hungry or cold or lack shelter from the storms.

If we take stock of our advantages instead of our adversities, we find ourselves favorably situated. What America needs just now is an optimistic outlook which will refuse to see the discouragements. If we ignore that which is bad, accept only that which is good, and strive for that which is better, we will soon be on the crest of a wave of happiness and prosperity.

Again we wish you a happy and prosperous New Year.

### Races of Bees

In this number our good friend Baldensperger gives us his ideas concerning different races of bees. As he is probably one of the most versed on the subject of races, owing to his having kept bees in different countries, this will be found interesting. He states that races of bees may remain close neighbors without mixing. However, our own experience in this country would tend to prove the reverse. Whether we have more Italian bees than the Italian people must depend upon whether we take enough pains to keep them pure, and every man who has reared Italian or any other race knows that it is a constant labor to select the breeders so as to keep them at the proper standard.

His experience of keeping Palestinian bees pure within a half mile of an apiary of French bees would be hard to duplicate here. In fact, the very existence of the common bees as far west as the west shore of the Mississippi River, to which they slowly migrated from the shores of the Atlantic, and where they were called "the white man's fly," indicates that bees will surely mix where there are no obstacles to their migration. It is true that the plains of Nebraska, Kansas and Colorado, and the mesas of Nevada, Arizona and New Mexico, must have been the cause of their remaining out of California until imported there by man. But we will have to import Italian bees for centuries if we want them to thrive in their pure condition in this country without man's control.

We are expecting another instalment of the Baldensperger contribution, which will be inserted in a future number.

### Disinfecting Combs From American Foulbrood

There have been discussions of this matter at different times. Lately one of our contributors wrote us that he was astonished that we recommended the Hutzelman treatment with an alcohol solution of formalin, and asked what was our reason for doing this, since the circular of the Department of Agriculture, No. 284, on this subject, describes a method with a water-formalin solution, cheaper than the Hutzelman. As this is a matter of great importance to beekeepers, we have thought best to make it the subject of an editorial.

We have had repeated questions on how to make a good solution for treating combs. Whenever we suggested to the beekeeper that he should make his own solution, there has been more or less disappointment, with very few exceptions. The fact is that the average beekeeper does not know how to handle drugs, is often too far from a well stocked drug store and, lastly, needs to be given very explicit directions on how to use the preparations.

The Department of Agriculture circular might be recommended, but it is lengthy and few people will read it through.

We are not interested in anyone's method. But when we recommend the Hutzelman treatment we know that the beekeepers who use it will get very explicit instructions, and, in fact, there has been more success by the use of this treatment than from the water-formalin. Evidently the alcohol soaks in more readily than the water solution, and the latter must be used still more carefully.

There is a firm advertising the water-formalin solution made by themselves, "The Diamond Match Company." We have not had any reports upon the success of this solution. Much depends upon the apiarist himself. The treating of combs is an expensive operation and the man who follows it must feel quite sure of success when he undertakes it.

Those of our readers who wish to post themselves and act independently should send to the Department of Agriculture, at Washington, for Circular 284 of March, 1926. It is important to give the date as well as the number, for there was another Circular 284 formerly issued, which treated of an altogether different subject. The title of the one we recommend is "The Sterilization of American Foulbrood Combs," by A. P. Sturtevant.

We might add that this circular does not accept any responsibility for the success of the treatment, even though its recommendations are good. Let us quote a paragraph:

"The results given are of a preliminary nature, the data being in some cases incomplete, but they are given for what they seem to indicate. Since these investigations were started, Dr. Hutzelman has taken out a patent on the solution devised by him, issued October 14, 1924. It seems advisable to state that the United States Department of Agriculture can assume no responsibility for the use of any of the solutions or processes described in this paper if they in any way infringe the patent."

On the other hand, the Circular 284 has this to say about a water-formalin solution:

(Page 24) "The uncapping of all brood cells eliminates the necessity for a solution with low surface tension. The much less expensive water-formalin solution will be found to enter the open cells sufficiently to soften, loosen and sterilize the scales as effectively as an alcoholic solution, although the entrance may not be quite

so rapid. The slower entrance into the cells is more than counterbalanced by the greater germicidal efficiency of formalin in the presence of water as compared with that of the same disinfectant in an alcoholic solution."

At the foot of the same page the circular says: "The data presented indicate that a 20 per cent solution of formalin in water is the most efficient as well as the most economical disinfectant so far found for the sterilization of combs infected with American foulbrood, **provided the cappings are all completely removed.**" The last words are italicized by us, because there has been more trouble from the failure to remove the cappings of all the cells than from any other cause.

The American Bee Journal has published several articles on the water-formalin solution. On page 234 for May, 1926, Prof. G. H. Vansell of the California University gives detailed directions which have proved quite satisfactory when carefully followed. Prof. Vansell added soap to his solution.

## Double-Walled Hives

In this number the reader will find an article from the pen of Mr. Protheroe, on the above subject. Mr. Protheroe confirms our contention that the matter of wintering is a local question. As a whole, we agree with him. But we differ on the statement that packing is bad for summer. I was at the apiaries of the old master, Mr. J. E. Crane, in Vermont, in the month of August, a few years ago, and saw there some colonies still packed in their winter packing. Those colonies did not appear to have suffered any from the heavy packing and had a good crop of honey on them. Double-wall hives, used the whole year, are to be found in the apiaries of some of our best beekeepers, and their bees do not seem to suffer.

As to the hives to use, there is room for all. In France, some enthusiastic beekeepers are extending thanks to Dr. Phillips for making them acquainted with the Demaree system, which they now call the "Phillips System," holding that it is away ahead of the system which we have recommended for years. Well, there is room for all, and we cannot expect everyone to follow us. Those who like to handle two stories for brood will be pleased with the double hives of the Langstroth size. This simply proves that we are right when we say that the single-story Langstroth, especially the eight-frame, is insufficient for prolific queens.

## Selling the Crop

We find that, in general, our beekeepers are getting much more active in selling their honey. They have found out that it is necessary to do some work, even in selling, after the work of harvesting. They also appear more inquisitive as to prices and rarely give the grocer an opportunity of setting the price at which their crop is to be secured.

There are, however, some men who think that others must do their selling for them. We received the enquiry of one man a short time ago asking: "Can you find me some one to buy my honey? I have 400 pounds and have no idea of where I can sell it."

Our reply was: Go to your neighbors. They all buy sugar, jellies, fruit. The average American eats over one hundred pounds of sugar a year and, if he is given an opportunity, will surely buy five to ten pounds of honey. Some families buy as much as a sixty-pound can of it. But you must let them know that you have it for sale. It is a mistake to ship your honey to some large center and see the crop return to the shelves of your grocer, with the profit of handling going to some wholesale firm, while you could just as well secure that profit for yourself.

There are beekeepers who do that yet, and it is for them that this item is written. Much honey may be sold to neighbors, and the grocer should be kept supplied and a guarantee given him that the honey is good and will be taken back if any of it is unsold when summer comes. But he should also be informed that all good honey granulates in cold weather and that honey is not spoiled by granulation, since in some countries people will not buy it until it granulates.

## Why Honey Goes Down

A well known honey packer has recently sent to this office a letter which he received from a beekeeper who complained of the price offered. The following quotation from the letter is interesting:

"I'm sure going to give the consumer some cheap honey direct. \* \* \* I will run it into five- and ten-pound pails, and as I will then have to take the time off to peddle it, I will sell it for 10 cents per pound to the consumer. \* \* \* If it will not move fast enough at that price, I will put it down to a price where it will move. If we can't get a fair price for it, then the consumer will be the one to profit by these low prices."

There is nobody but the beekeeper to blame for the low prices at which honey sells. The above letter indicates the general trend of the present market. The beekeeper sells his product to his neighbors at wholesale prices. The packers are compelled to offer lower prices as a result to meet the figures set by the producers.

Honey is not a perishable product. If properly ripened and cared for, there is no reason why any unsold honey cannot be carried over until the next season. Such actions on the part of honey producers make every dealer afraid to invest his money in our product. A case was called to our attention where a big wholesale concern asked for prices on a carload of honey. The various beekeepers bidding quoted such a variety of prices that the buyer became afraid that there was an overproduction, and as a result did not buy of anybody. He was prepared to pay the highest price asked without question had there been no disposition to cut prices. The result was the loss of a sale of a carload of honey, for the buyer bought syrup instead, since he knew that the price would be maintained and he felt that his money was safer.

## Too Many Drainage Projects

Beekeepers in some localities are finding their pasture restricted by the drainage of extensive marsh areas. In some cases the results of the drainage are disappointing to those who pay the cost.

Our technical schools are turning out a large number of engineers who see in any body of water only a job for an engineer to do. They know little of the value of the land to be reclaimed for agriculture or the possible effect of the changes on the community at large. Drainage has become a popular enterprise for promoters, with the result that many areas have been drained to the serious detriment of the public.

Not only have the breeding grounds of many fur-bearing animals and water birds been destroyed, and much good bee pasture removed, but the reclaimed land in many cases has been unsuited to the purposes to which it has been put. Losses have been heavy and the agriculture of the surrounding region greatly injured from the changes in the water table under the soil. Now attempts are under way to restore the original condition at still greater cost, since it has been found that the original marsh was worth more as marsh than for other purposes.

Again, the straightening of so many small streams simply has the effect of passing the problem of overflow on to the fellow lower down. Each in turn tries to do likewise, until it reaches the man who has no such opportunity, to his great loss. This action in the case of so many tributaries of the Mississippi has been one of the factors in causing the disastrous floods which have aroused the sympathy of the civilized world.

There is a great need that all drainage projects be studied by experts other than those whose only knowledge has to do with ways and means of removing the water. If we are to have game and fur-bearing animals, breeding places must be provided. If we would avoid floods, natural storage reservoirs must be maintained. If we would avoid drouths, provision must be made to retain a reserve supply of water in the soil. Too much drainage affects every one of us adversely. It is better to look into these matters before the damage is done.

F. C. P.



The Gilbert apiary of big, double-walled hives, and the honey house, a neat, well equipped building

## Around the Finger Lakes of New York

By G. H. Cale

**T**O mention California in a bee-keeping way brings the picture of apiaries in ravine, valley and hill-side, scattered north and south over her seven hundred miles of territory; not small outfits of a few colonies, but big apiaries, pictures of which are the favorite album pieces of many beekeepers elsewhere.

To my mind, the beekeeping of New York State has always given a picture similar except in one respect. The apiaries nestling among the quiet hills and valleys of the Empire State are small and cozy. Only here and there loom the larger outfits of her major honey producers. Among these beekeepers, however, are some of the finest that have ever entered the industry. I can imagine no more pleasant experience than to be free to travel the Empire State visiting the men who have so long been in the front rank in her beekeeping history.

Nowhere else has the pressure of education in beekeeping left its imprint more effectively than in New York State. The fundamentals of good practice, once considered "high hat" by the majority, are accepted as the first evidence of being a good beekeeper in New York. There inspectors have been educators rather than police officers, reserving the dragnet of their power for obstinate cases. Such extension workers as George Rea and R. B. Willson have also left their trail behind them, and as a result New York is wonderfully well organized for educational and cooperative work among beekeepers.

It was my good fortune during the past summer to spend several days traveling over a route from Cornell to Rochester, east to Geneva, and

south to Ithaca, visiting several beekeepers on the way.

### A Top Notch Farmer-Beekeeper.

At Leicester, New York, is Thomas Coverdale, farmer and beekeeper of no mean parts. It becomes evident on entering his place that Tom Coverdale is a man of influence among the beekeepers and farmers

that he finds a way to do things well, no matter what he undertakes.

It is a lovely home that Coverdale has, an old stone house on broad acres with a large and thoroughly equipped barn and sheds, no farm machinery standing out to rust, everything shipshape.

So it was with his apiary of about one hundred colonies, housed in Modified Dadant hives, about which he is enthusiastic. He can, as he says, "do the work and get more honey in less time, which leaves me free to take care of my farm."

### The Kind of Beekeeper Who Lives in Town

H. L. Case, of Canandaigua, is typical of a great many of the beekeepers who live in the towns and smaller cities and have been missed by our census takers. He has a nice city home and is a man of good standing and worth in his community. At 78 years of age, he is just beginning to release his active interests in apiaries of about a thousand colonies of bees, in which he has worked, through thick and thin, for over sixty-six years.

Mr. Case now has a man working with him. He expects to spend most of his time in superintending the work, taking care of things at home, and selling the honey.

At Geneva is C. B. Howard, who is not only a fair-sized beekeeper, with over 1100 colonies of bees in twenty-five outyards, located at Geneva and Hayt's Corners, but also a honey buyer, serving all the region in which he lives and handling apparently quite a number of carloads of honey per year. Good reports of Howard came from quite a few bee-



Arthur C. and George S. Gilbert, of Honeoye Falls, New York

in his neighborhood. While he is not a county agent, but an independent and successful farmer, he is approached for advice on all kinds of farming subjects by people for miles around. This confidence is apparently the result of success, for it seems, even to the casual observer,

keepers met along the way. Some of the producers seem to rely on him entirely for their marketing.

It is very evident in talking with a man like Howard that buying and selling honey to the advantage of both the producer and buyer is a job entirely different from that of keeping bees. There are many things about it which can be learned only from long experience, and I believe that Howard, and many others of our honey buyers, could have spent their efforts in some other line of food supply at much greater profit to themselves than in handling honey.

However, it is well that they have not done so, and it seems to me that they are doing a good job, part of the pay for which is the service which goes in maintaining the market for honey. It is not an easy thing to assemble carlots of honey from scattered points to advantage and market it where even a small profit can be obtained without loss to anyone. That Howard is doing this job well, I have no doubt, and there might well be more like him in the heavier producing parts of the country.

#### The Gilberts of Honeoye Falls

The main delight in this entire trip was the visit with Arthur C. Gilbert and his son, George S. Gilbert, at Honeoye Falls. The Gilberts have been beekeepers at that place for a long time. There is also an uncle interested in beekeeping.

Here, one sees beekeeping, in a small way, conducted in every respect along the lines of a larger business. George Gilbert has really succeeded his father in the care of the bees and now takes the most active interest in them and does most of the work.

The Gilberts are millers, with an old-fashioned mill, waterwheel, millrace, and the usual picturesque setting for the milling operations. There, way out in the country, in pleasant surroundings, with a beautiful, natural environment, they make whole grain flours of several kinds. Those interested in health foods can get from the Gilberts the nicest whole wheat flour to be obtained anywhere.

Everything about their beekeeping operations is devised to shorten the work and at the same time give the largest possible returns from the bees. George Gilbert has discarded the ten-frame hives of his father and is now using large hives which are packed in double walls all the year round. Wintering is easy. The entrance is shut down to a small space and a tray of ground cork put on top of the double-walled hives and covered. In a few moments each hive is packed for winter. It is only necessary to make certain that stores are plentiful and the ordinary rou-

tine of good beekeeping takes care of the rest of the wintering problem.

There are about a hundred colonies in the apiary at present. Probably half of them are used to produce comb honey, usually the best and strongest colonies. The others are used for producing extracted honey. For comb honey supers, George Gilbert uses section racks with special section holders, the outside one having a solid side instead of the usual beeway veneer. When these are tied together the super is complete without the use of a body as in the ordinary super.

This is an old system, and apparently one much used in New York State. Years ago, I ran across it in the apiary of J. B. Merwin, in the Catskills, at Prattsville, in the eastern part of the state. It is a good way and cheaper than the ordinary, but somewhat more fussy.

Two items of equipment at Gilbert's interested me. One was a ventilated escape, with the usual Porter escape in the center, and strips of wood nailed along the center line of the frame, out from the excluder holes, with the ends toward the cen-

ter beveled down to a point. These act as leaders, so when the bees come up against these strips in wandering around over the surface of the excluder they are led to the escape hole and thus out of the super. Mr. Gilbert said that his supers equipped with these ventilated escapes with leaders were emptied much more rapidly than in any other way he had tried.

Suggested treatments for bee stings are frequently given, many of them of little importance. George Gilbert's bees were more gentle than the average, but several of them took offense at our interference and stings were the result, whereupon Mr. Gilbert at once produced a bottle of liquid from which I smilingly let him use a small amount on each sting. To my surprise, the itching and discomfort were almost immediately stopped, although the swelling remained. Lo! Here then is a sting relief. Let us not call it a cure. As nearly as I could make out, it is a mixture of carbolic acid and creosote, judging merely by the odor, called "quiacol." Try it on your druggist!

## "Queen Reservoirs"

By Helen Harrison

F. B. PADDOCK, State Apiarist, in his work with bees at the Iowa State College apiary, has found what he considers the most satisfactory method of queen introduction. He uses a "queen reservoir."

The "queen reservoir" is a regular hive body with two partitions making three compartments. The hive is placed on a plain board, thus keeping the bees from getting from one compartment to another. The hive has three widely separated entrances, and has three inner covers to allow the beekeeper to work with any one of the colonies without disturbing the others.

The hive body contains three two-frame nuclei, which are made when needed, by taking two frames with the bees on them from a strong colony, and placing them in one of the compartments. Care must be taken that the queen of the hive is not on either one of the frames. One frame is of sealed brood and the other either contains food or is empty, depending upon the season. The queen is then transferred from the cage to the two-frame nucleus.

There are three things that make the "queen reservoir" a good method of queen introduction: First, laying queens are readily accepted by bees. After the queen has been put in the "queen reservoir" and has been left for seven days she has started lay-

ing and has been accepted by the nucleus bees. The queen and the seven poorest frames are taken from the hive that is to be requeened and the remainder of the frames are divided evenly and the nucleus is placed in the hive, an effort being made to have the queen between the two frames of the nucleus. Smoke or peppermint water may be used to kill the odor of the newcomers.

Second, if a beekeeper has a "queen reservoir," he always has queens on hand in case of emergencies. Queens can be kept in these reservoirs for a long time.

Third, these reservoirs are a proving ground for the queens. After the queens have started laying, the weak ones can easily be found, making it possible for the beekeeper to select the strongest queens to reinforce the weak colonies.

These reservoirs have been used for about four years at the Iowa State College apiary and have been very successful.

## Another Beekeeper Passes

A clipping from a Dubuque, Iowa, paper informs us of the death of John Hohmann, a well known beekeeper of that vicinity. Mr. Hohmann is survived by a wife, one daughter and six sons.

# Are We Training Too Many Beekeepers?

By J. H. Merrill, Ph. D.

SIMPLY to answer "yes" or "no" to this question would be far from convincing. It would be much better to ask, first, What do we mean by a trained beekeeper? and, secondly, If there be such creatures, are they assets or menaces to the best interests of beekeeping?

If we consider a trained beekeeper to be solely a man who, through study or experience, is enabled to manage his bees so he produces larger crops of honey, thus increasing the selling problem, then the answer is, most emphatically, Yes! The beekeeper, so-called, who does nothing but increase the selling problem has not contributed any good to the beekeeping industry. In fact, the contrary of this is true. Those beekeepers now engaged in beekeeping as a means of livelihood should not be blamed for objecting to the increase and numbers of such "trained" men.

To my mind, however, a trained beekeeper means something entirely different from this. Having had a close acquaintance with educational work along beekeeping lines, I feel that I can safely say that **better bee-keeping**, rather than **more honey**, is the object of such work. Of course, it naturally follows that more honey is a corollary to better beekeeping. A trained beekeeper should be one who is not only qualified to produce increased crops of honey, but he should also be able to do so with less expense than the untrained man. It shouldn't be considered a crime to cut down operating expenses. I know of a chain grocery that requires its managers to save all waste paper, old boxes, and so forth, in order to cut down expense. This doesn't mean that the grocery company is niggardly; it is simply an indication that they are trained "grocers."

In addition to producing a crop, he should be further fitted to market wisely. It has been said that raising a crop is an art, but that disposing of it is a science. A trained beekeeper would have made a study of marketing conditions, and others may very profitably follow his example. This is a rich country, and people could afford to buy more honey than they do. Were it not for the fact that automobile manufacturers employ trained business men to market the ever increasing number of automobiles, would it be possible to dispose of them? These trained men convince the public that automobiles are necessary to their well-being, and also that they really desire them. The trained beekeeper should do as much for honey.

The trained man should be able to operate his colonies in such a way that they would be of no menace to neighboring beekeepers. I have known "beekeepers" who, although their apiaries numbered a hundred colonies, and although they had been in the business for nearly fifty years, had never seen a queenbee. Such a beekeeper would be loud in his protests against trained beekeepers, but what would such a man do if foulbrood appeared in his locality?

It is absurd to hold to the belief that an increase in the number of trained beekeepers would mean the overstocking of some of the best beekeeping territories. This is one of the last crimes that could be laid at the door of the trained beekeeper. Such a man would sense that a territory was overstocked probably before the untrained man, and would change his plans accordingly. Just because there are a number of beekeepers in any given locality is no real reason why the coming of another should be considered as a menace. One apple grower once remarked to another, "Foster, I made your business good for you; I have just cut out eight hundred apple trees." Whereupon Foster answered, "I would rather have paid you money to have that orchard scientifically handled than to have had those trees cut down. We want the people to know that this is an apple growing community." Some communities specialize in the growing of apples, some in the production of oranges, and some in honey, and it is to these localities that the buyers interested in these individual lines are attracted. All of this may be summed up in the phrase, "It pays to advertise," and the trained man should be a specialist along this line.

When selecting a territory for beekeeping, the trained man will do so from a scientific standpoint. Instead of judging a locality haphazardly, or of accepting the say-so of supposedly well-informed people as to its honey producing possibilities, he will make a study of the soil, climate, altitude, the different plants in that territory, and the honey producing qualities of those plants when grown under such conditions. Just because a plant produces honey in one locality is no reason why it will in another. As for instance, alfalfa grows and is a valuable forage crop in localities where it produces no nectar at all. Having chosen his location wisely, the trained beekeeper is more apt to succeed, and not fail in a short time, leaving behind him neglected colonies of bees to serve as sources for the spread of foulbrood.

Brains and beekeeping make a very good combination. It is not meant to infer here that untrained beekeepers have no brains, but it must be admitted that in order to be trained a man must have some brains. Furthermore, having been trained along the lines of better beekeeping, the chances are that such a man will use his brains to the betterment of the calling which he has chosen. Such being the case, it is hard to see how he could be otherwise than an asset.

It is not customary to place definitions at the end, consequently we will call it a summing up of those characters which go to make a trained beekeeper. A trained beekeeper is, or should be, one who by virtue of his training and experience is able not only to produce maximum crops of honey at a minimum of expense, but, having done so, to market such crops to the best interests of himself and beekeeping in general.

Are we training too many? No, let's have more of them!

Massachusetts.

## Do You Like the New Envelope?

The December issue of the American Bee Journal was mailed to our readers in envelopes instead of rolled in wrappers as usual. We are anxious to know whether the magazine reached you in better condition as a result of being mailed flat. Our future method of mailing will depend upon the reports we receive from our readers as to the success of this experiment. If you like the new method, be sure to tell us. Likewise if you prefer the roll as used for so long, please let us know.

## A Swarm Takes a Ride

A swarm left us this summer and settled on a carload of slabs which the train was moving at a good speed. It was noticed and hived at the divisional town, Watrous, nine miles east. We are a half mile from the railroad. Only a small number "caught the train"; the others came back home.

A. F. Eckdahl, Sask., Canada.

## Handling Bees

A Finland beekeeper, K. Avatin, says that angry bees are easily quieted by using a piece of comb in the smoker. The odor of the burning comb, he says, appears to have a quieting effect upon the bees, while the burning of a bee angers them.—France Apicole.

# Interesting Facts About European Bee Culture

By Alois Alfonsus

THE course of development of European bee culture naturally is quite different from the American. The bee pasture, here abundant and rich, poor over there, is one of the factors which stipulate management of the colony decidedly differing from American practice. With the invention of the movable-frame hive, built for working from above, Rev. Langstroth made a lucky strike. Dr. John Dzierzon, who constructed the first movable-frame hive as early as 1837, originally employed also the method of working from above. But, using top bars and not frames, he had to go back to the old manner of working from behind again, as this procedure insured an easy cutting loose of the combs from the side walls. Even the invention of the frames by Berlepsch did not change the old way of working. I was the first beekeeper to introduce the Dadant hive in Austria; I kept a hundred colonies at that time. Fifteen years ago, the "Reichsverein fuer Bienenzucht," in Austria, brought the Austrian "Breitwabenstock" on the market, a modified Langstroth hive, with the frames about one inch higher. This hive we can justly call an American-Austrian cross, and it was from the beginning very successful. The great advantages of the operations from above soon were recognized and the manufacturers of such hives have always been away behind with filling their orders. Of course, there are a great number of beekeepers who, even today, think the old "hindloader" to be the only thing. On the other hand, there are many beekeepers who would like to use the modern hive, but lack of money is a chronic disease in Austria, since the peace treaty deprived us of our most fertile soils, our coal and oil. But there is industry among the beekeepers, the same as in the colony itself.

The main reason why so many breeders stick to the old hindloader yet is that the space to place the hives of American system out-of-doors is not available. In most countries of Europe every square foot of soil is utilized for agricultural production. The kitchen gardens, where the hives generally are to be found, are small, and, besides, serve to raise vegetables and fruit trees. On account of that, bee houses are built and the hives are placed one on top of the other, in two to four rows. A house for thirty and more hives only covers a small area, and its interior serves as a working room. In a large and well-built bee house there is also

place for the extractor, which, as a rule, is driven by human muscles. There are many small beekeepers, who only own a few colonies, just enough to cover the demand of the family. In the time of the great sugar shortage during the war, the Austrian government, in a very disinterested way, supplied the beekeepers with the sugar needed for the winter feeding, to a time when everybody had to use saccharine (a sweet produced from coal tar, without the slightest nutritious value), and thus saved bee culture from destruction.

The government census for domestic animals showed that on the average the Austrian beekeeper owns six hives. But there are quite a number of apiarists who have a few hundred colonies, and who keep bees as their principal source of income. The price of honey in Europe is twice as much as it is here. Syrup or molasses does not appear on the table and honey is highly appreciated.

But speculative people produce artificial honey. There are honey (?) factories in Germany, Austria and Czecho-Slovakia which manufacture invert sugar, add some honey color and a slight amount of real honey, to give that stuff a little flavor. In Austria, as well as in Germany, there are some laws in the making to protect the beekeeper from this pressing competition. The use of honey over there is many-sided; honey pastry is highly in favor. The art of manufacturing such pastry is very old and is a reminder of those times when sugar was unknown and honey the only thing to sweeten foodstuffs. In publishing the largest possible number of recipes of this kind, I shall endeavor to make this easily digestible and healthy food more popular on the American table.

Practically weedless fields are the consequence of more intensive agriculture in most European countries, so that yellow mustard and corn-flower and other good honey plants seldom are to be found in wheat, rye or oat fields. In the more mountainous districts the laying out of artificial meadows fast destroyed some of the best bee plants, so that the bees nowadays only find a poor dinner table. The beekeepers' associations and the individual beekeeper agree that something should be done in order to improve bee pasture. The largest and most reliable sources of honey are the different kinds of trees: first the many varieties of maple, of which the mountain maple

is the best; then the acacia (black locust), the Goetterbaum (*Ailanthus glandulosa*) and the different varieties of the linn. We have two kinds of linn: the Summerlinde, which starts to yield honey around the eighth of June, and the Winterlinde, which blooms in July. In localities where these trees abound there is excellent honey pasture from about the twentieth of May till the end of July, and, when the weather is favorable, immense quantities of honey are often harvested.

Among the different clover varieties the Esparsette (*sainfoin*, *Onobrychis sativa*), is the best. It yields much more honey than the sweet clover and fills the supers in a very few days, although as a rule it is cut by the farmers when in bloom. In those parts of the country rich in woods and forests the conifers (pines) produce immense quantities of honey, especially in hot summers with cool nights. But this honey is of animal origin. It is produced by myriads of small lice, whose secretions are gathered by the bees and transformed into honey. Sometimes this forest honey crop is so big that the beekeepers run short of vessels to put the honey in. This honey is of dark brown color; nevertheless it has a good market on account of its highly sanitary effects.

A great advantage of American bee culture is the late appearance of the main crop of honey. In most countries of Europe it starts some time in May and lasts a short time. But here it commences later and lasts much longer. On account of the raw and ever-changing spring weather, most colonies have not yet reached their climax of development when the biggest quantities of honey are available, so they are unable to make full use of nature's honeyflow, as there is a shortage of field bees within the colonies. In order to get enough field bees at this important time, very often more or less clever tricks have to be employed.

Most generally the queen is set on a reduced number of combs a fortnight before the beginning of the expected main honey yield. The result is that little brood will be in the colony and most bees are available for honey production. In this manner we are able to increase the honey yield considerably; fifty pounds of light honey per colony can be produced under favorable weather conditions, while otherwise the average yield would be around twenty pounds. This is a case of real "artificial" bee culture, and successful

only is that fellow who has acquired a thorough understanding of bee culture. Another factor tending to decrease the yield of the colonies is the fact that very often there are too many colonies on a given restricted area. European villages are built differently from American ones. The farmer, as a rule, lives in the village, and the farm buildings constitute a part of the latter. The fields and meadows are very often far away from the farm, and hundreds of colonies are often to be found within the limits of the town. This, of course, has an unfavorable influence on the honey yield. There is now an increasing tendency to move the colonies to localities promising a higher yield, on account of less competition.

In places where rich sainfoin fields abound, many hundred colonies can be put, and they have a hard time to gather all the honey. However, the cultivation of sainfoin is rapidly decreasing.

The moving of the colonies takes place in horse-drawn vehicles or by railroad, as the automobile truck is an unknown thing on the farm as yet. In Hanover (a province in northern Germany), a region well known on account of the wide heaths, the railroad companies organize special trains in order to transport the hives to the heath in bloom. During the night those trains stop at every depot and take along the cars filled with colonies.

Even the flora of the mountains is utilized by some beekeepers in the Alpine regions, who transport their hives way up to the mountain meadows, a very tiresome and hard job.

Everybody endeavors to further and promote apiculture, to enlighten the public, and most beekeepers are very ardent boosters for their cause. In order to control bee diseases, some governments inaugurated special laws. A very good and efficient system of control of the bee diseases exists in Switzerland, where forty foulbrood inspectors work under the same management. They all are equipped with A-1 microscopes. Unfortunately, the Isle of Wight disease has crept into the western part of this very progressive and leading country in Europe.

A staff of well-trained instructors is busy teaching beekeeping in some of the middle European states. It is their special duty to talk before beekeepers' meetings and associations, to explain and demonstrate the newest methods in beekeeping, to talk about the control of the various diseases, about storing and marketing honey, etc. There are quite a number of institutions, also,

where beekeepers can get thorough, practical and theoretical training. The oldest of these schools is the "Imkerschule" in Hanover, Germany. Erlangen and Dahlem are places of intensive bee experimenting and teaching. Beekeeping is taught also in some universities and in all agricultural colleges. Even many grade schools are a good means to introduce beekeeping to the younger generation, especially where the teacher himself is a strong booster for apiculture.

There is intensive and thorough scientific work going on at the present time in apiary research work. Important scholars of modern apiculture are, among others: Prof. v. Frisch, of the University of Rostock (Germany); Prof. Dr. Ludwig Armbuster, of the University of Berlin; Prof. Enoch Zander, of Erlangen; Dr. Ludwig Arnhardt, of Imkerschule in Vienna; Dr. Morgenthaler, of the Bacteriological Experiment Station of Bern-Liebefeld, Switzerland, who put their whole energy and brain power in its service, and who have discovered already many interesting facts.

Although the returns from beekeeping are by far smaller abroad than they are here, it is not to be denied that this branch of agriculture is of vital importance for the economic prosperity of those countries. Prof. Zander estimates the benefits resulting directly out of the fructifying work of the honeybee on agricultural plants to be five times as great as the value of the honey and wax crops put together.

If the efforts of the many different beekeepers' associations are successful so as to inaugurate a general improvement of the bee pasture, then good times for European beekeeping will certainly come again. Since 1917 we have had very poor honey years; cold weather, rain and snow destroyed the fondest hopes of the beekeepers abroad.

### Beekeeper Succeeds in Spite of Handicap

A catastrophe in the form of a physical ailment started G. A. Barbish of Hokah, Minnesota, in a business which today furnishes many states with honey from his hives. Mr. and Mrs. Barbish had been married but a year when the blow came and Mr. Barbish's health failed. He had just purchased a small farm for \$1,100 and the two had made plans for the future, but ill-health threatened to dissolve those dreams. Expensive operations threatened to steal away the home and the few acres of land.

Out of it all there came the verdict

that Barbish would never walk. For three years he lay flat on his back in bed, and while he lay there he had time to think. He pledged himself to raise bees, and while he lay in bed he studied books on bee culture; articles on bee culture; commercial pamphlets on bee culture. He read and studied and determined that he would start a bee farm and raise honey.

With borrowed money he purchased some Italian bees and started to experiment. Actual experience with the bees taught Barbish more than he had learned from books, and he put original ideas of his own into his colonies and he prospered. Then a second blow came when farmers in the vicinity began to have trouble with their fruit trees and sprayed them when they were in full bloom. The poison killed a large number of the Barbish bees, but the loss was soon made up and from that time on the apiary grew and prospered. Bees do an important work in pollinating the blossoms to insure good fruit, and since that time the fruit growers have abandoned tree spraying when they are in full bloom.

At present there are in the neighborhood of eighty colonies on the Barbish farm. Barbish honey is annually shipped to many states and to Canada. Besides these markets, Barbish honey also finds its way to Germany, Switzerland, Norway and many other foreign countries.

The honey is not extracted until the entire crop is in the hives, and not until the honey is thoroughly ripened. It is then extracted from the combs by centrifugal force and flows in a thick stream into large storage tanks, after which it is carefully skimmed and finally put into containers holding from five to ten pounds, which are sold locally. The containers hold anywhere from five to one hundred pounds of honey and are shipped by freight or express to distant markets.

The main honey crop comes from the white clover blossoms, which make the finest honey, but occasionally a light crop is harvested from the fall flowers, such as hearts-ease, goldenrod and asters. The average crop per colony runs from 50 to 75 pounds, although in an exceptionally good season it may run as high as 100 pounds. One season Barbish harvested 7,000 pounds of honey from seventy colonies. A limited supply of comb honey is disposed of through tourists and local customers.

"I never could have done what I have, nor could I have made a success with my bees without the help of Mrs. Barbish. It was she who stood by and helped me when I was unable to help myself, and it is to her that I owe our success," Mr. Barbish said.

## A Parisian Apiary

By Frank R. Arnold

HAPPY is the bee lover who discovers an apiary in Paris. It is as refreshing as a letter from home and almost as provocative of nostalgia. He doesn't have to go into the city suburbs to find it, but will come across it in the midst of the Luxembourg garden in the heart of old Paris on the left bank of the Seine. Here fifteen hives of various types, from the skep to the Dadant, make up an apiary that has been in the garden since 1856, when the French Central Society of Agriculture decided that they needed some city hives to illustrate the yearly courses in beekeeping that were to be given in the city. The French senators who live in the Luxembourg palace gave their consent to having the apiary in the gardens without putting any conditions, such as reserving for themselves the products of the hives, as they have done for all the oranges that grow on the trees in tubs in the gardens. It is just as well, for there is never any

surplus honey, though the Paris bees in good years make their own living in the garden, which has sixty-five acres of trees, lawns, playgrounds and flower beds. They get most honey from the lindens, hawthorns, black locusts, horse-chestnut trees and sycamores, as well as from the tubbed orange trees and the flower gardens.

The apiary is only a few steps from a small lecture hall in a garden pavilion where twice a week in March, April and May the lectures on beekeeping are given. They are in charge of Mr. Theophile Mamelle, a professor at the State Agricultural College at Grignon, an hour out of Paris, to the north. This course at Paris is one of fifteen that he gives every year, for, in the French phrase, he "repeats himself" in another Paris garden, the Park of Montsouris, as well as in various schools and colleges. He also gives about fifty Sunday afternoon lectures during the year to country farmers, for

that is the time when the French farmer likes to get his extension lectures from the state. Mr. Mamelle is a trained bacteriologist of the University of Paris as well as a practical bee man on his own account. He owns four hundred colonies, scattered about Paris between Rambouillet and Versailles and in the fruit region around Montmorency, just outside Paris to the north, a district famous for its cherries and peaches. In fact, each one of these places is a familiar name to any American and proves to him that France has much to offer the visiting sheep man, bee man, or horticulturist. From his own personal hives Mr. Mamelle says he gets, good years and bad, an average of twenty kilos, that is about forty-four pounds a colony.

Just why these bucolic bee lectures are given in Paris is not surprising to anyone who knows the French character or to anyone who goes to one of the lectures and watches the audience. They are the

Center oval. Hall where bee lectures are given every spring in the Luxembourg Garden, in Paris. In front is the statue of Adam and Eve, the first patron saints of bees and gardens.



Lower right. The orchard corner of the garden. Trees are trained on wires called cordons, and fruit is protected against insects by paper bags.



At the left above is the apiary showing the various types of hives. Overhead is a horse-chestnut, and all around are lindens



best attended bee lectures given anywhere in France, because French people ever since Napoleon have been accustomed to look on Paris as the source of all light. People in the various departments, as the state divisions are called, do not elect their own prefect or governor, but receive him as a gift from the central government in Paris. All educational and legal appointments come from the same center. Men with estates in the country have the habit of spending the spring months in Paris, and so you are not surprised to see, in the Luxembourg bee audience, owners of country property all over France, as well as more humble people from Paris and its suburbs. Any one is welcome to drop in to a lecture if he explains to the door guardian that he is a bee lover. The day I was there was one rainy morning in early June. The students were old men killing time, country gentlemen, war widows; keen, alert young men and women, even boys in their teens, about seventy-five in all. Evidently bees are beloved in France by many. Napoleon had them embroidered on his imperial mantle and painted in gold on his Sevres china. Nothing could symbolize better his gleaning, gathering methods, and today nothing can better awaken the admiration of the French people than an insect who is as thrifty and industrious as they and who is most worthy of being tucked into their suburban gardens, full of everything, from Madonna lilies and lettuce to rabbits and roses. The lecture, the day I was there, was on bee diseases, and Mr. Mamele being a bacteriologist at heart, expanded most enthusiastically on the pathogenic microbes after having discussed the more common bee diseases. Although his hearers were seated on the little straw-bottomed chairs with backs so short that they are a torment rather than a support, cutting your back in two as they do, but beloved of French churches and small lecture halls, all the same the audience listened intently, took copious notes and crowded around the lecturer with eager questions after the lecture was over. As it was the last lecture of the series, they gave Mr. Mamele, to show their appreciation of his work, a tall parlor vase, one of the kind that are purely ornamental and that you would never dream of using to hold flowers.

This lecture hall, where the bee talks were given, is only one of the many unique features of the Luxembourg garden, all of which are worthy of being imitated by American public gardens. The Luxembourg is probably the only city garden in the world with an apiary, but there is nothing like it to give a rural atmosphere to a public garden and to en-

hance the feeling of quiet seclusion that should be the chief quality of every garden. It is so pleasant to see someone else work while you meditate calmly at your leisure. The Luxembourg has also an orchard corner full of apple and pear trees, trained on wires, and ministering to the rural-mindedness that is in the heart of us all. The fruit blossoms help feed the bees, and the corner receives daily visits from the garden habitues, who are as eager to see how the pears and apples are doing as they are to see the rose garden. Besides the apiary, orchard and lecture hall, the Luxembourg has the senate house, an art museum, an English garden with lawns and winding paths, a French formal garden; croquet, tennis and other playgrounds; a pond where the future French admirals sail their boats; a sunny, sheltered retreat where even in January, French wet nurses sit with their charges; endless vistas of horse chestnut trees and fountains, and so many statues that the garden itself is a museum.

And all these features blend into a homelike park with something for everyone, just as a French sauce is a blend of many tastes over which all may smack their lips. Here, more than anywhere else in the city, you may open the avenues of your soul to a thousand impressions. Whether you listen to a bee lecture or watch the children play, or hum to yourself the "Habanera" you heard last night at the Opera Comique, you murmur unconsciously, "So this is Paris!" The trite threadbare phrase takes on a new meaning for you. You are seated somewhere between the Latin Quarter Bohemia and the bourgeois Bon Marche, between the tomb of St. Genevieve and the tomb of Napoleon, and the bees are bringing you the essence of Parisian fruit and flowers. How could Paris possibly mean more to you?

### An Old Beekeeper and Teacher

Charles Hertel, of Belleville, Illinois, has been a correspondent of the American Bee Journal folks for over fifty years. He was and is still a teacher, as well as a beekeeper. He writes from Belleville:

For years I have driven seventeen miles to and from my work, and that became too strenuous for me at my age, 81 years.

While we lived at Belleville we sold a few hundred pounds of honey at our home. Now that we live at National City, this trade drops out. When the weather is fair on Saturday, we usually come up here, and go down again Sunday evening. We maintain both homes. In the spring,

when the weather is nice, we will live up here again, and I'll drive to and fro.

Received the best crop of honey, from my few colonies, that I ever harvested, about 150 pounds of a high quality of extracted honey per colony. White clover yielded well, and sweet clover on farms near Belleville furnished the rest.

Charles Hertel.

### A Surprising Change

A few years ago western Canada furnished a splendid market for honey from the eastern provinces. Many carloads of honey from Ontario were sold in the towns on the prairies of Manitoba, Saskatchewan, and Alberta. Now all is changed. These same provinces are producing honey by the carload and soon the surplus will be exported to the States and to England.

Toronto papers have commented on the fact that most of the prizes on honey at the Toronto Royal Fair were captured by honey from the prairies. The following, clipped from the Toronto Globe, indicates that the day of severe competition between the honey of the East and the West is not far distant:

#### Prairie Honey Wins

"Visitors at the Winter Fair are asking what has happened to Ontario honey. Barring the class for buckwheat honey in jars, which was headed by Temple Bros., Toronto, and the special award for the most attractive display, which went to the Toronto Beekeepers' Association, practically every honey prize of any importance was captured by entries from Alberta, Saskatchewan and Manitoba. Correspondents from the western papers "covering" the big fair are crowding over the victories scored by their provinces, which, they point out, have been in the beekeeping game for only a few days, and whenever the subject of butter awards comes up they turn the conversation to honey."

### Some Honey

The North Dakota Beekeeper's Newsletter reports that Mr. Fred Marquette produced 551 pounds and 2 ounces of comb honey and 42 pounds of extracted honey from a three-pound package of Caucasian bees received in Fargo on April 20. If anybody has a bigger story, let's hear from him.

The same paper states that Jack King has packed his bees and gone to California to spend the winter. If all the bees up in that country turn out honey on that kind of scale, most anybody with a few colonies ought to be able to winter in California.

# Disposal of Cappings

By Morley Pettit

WHEN the invention of the extractor gave us a simple method of producing honey free from comb it left us a problem which has remained to this day, the disposal of the cappings. Although it is small compared to the one solved by the honey extractor, it is still a real one. The problem is to separate the honey from the wax of the cappings without injuring it, or to reduce the injury to a minimum and at the same time keep the cost of the operation down to its right proportion.

With the small beekeeper producing less than twenty thousand pounds it is not such a serious matter. At least he may not notice the loss of time so much, or there may be someone in the family whose time is not so valuable to do the extra work involved. He can work over an uncapping can with strainer bottom, let his cappings drain there or elsewhere as long as anything will come from them, and later work them into wax. Some store the cappings under a black roof, where sun heat will prolong draining without injury to the honey. They will still contain at least as much honey as wax and it will be profitable to use some sort of capping melter which saves the honey while rendering the wax. Some use the new bilateral extractors for removing most of the honey from cappings by centrifugal force.

The old-fashioned solar wax extractor is first class for rendering moderate quantities of cappings where there is anyone who has time to attend to it. It gives you the wax in a solid cake quite well clarified and the honey considerably darkened and flavored. Of course, it can only be used in hot, sunny weather, and requires a lot of attention in a busy time. The worst of all is that, in the short northern summer, the best sun heat is past almost before we start extracting. Where these objections can be overcome the actual labor involved in running a solar wax extractor is not great and a home market may be developed for the honey among people who are taught to know its source and like its flavor. In the old home apiary where the writer spent his boyhood and "watched the bees" it was one of his duties to look after the wax extractor. It was set on a pivot so it turned easily and had the double glass top sloping toward the sun. About every hour it had to be turned to face just a little past the sun. By sundown the contents had melted and run down into the wax pan, where it was left to cool until morning. Some

were arranged so the honey could run into a cooler compartment away from the hours of scorching. Ours was never so elaborate. I remember once conducting an experiment to determine how hot it actually became inside the melting chamber under the full force of the sun's rays. It was only a household thermometer, and before the experiment was completed the mercury was running in little silver globules about the bottom of the box. The boy knew then that at least the temperature rose above 110 degrees F. He also learned some other things after the breaking of the thermometer was detected by authorities higher up. Each morning the wax extractor had to be faced toward the sun to warm up. When it had attained almost a melting temperature the refuse was scraped out of the melting pan, a fresh piece of cheesecloth put in the straining device and more cappings put in for the day's melting.

It is quite practical to put the cappings into the extractor and dry them by the same process which empties the combs. Any of the new machines which extract both sides of the comb at once without reversing can be fitted for this without much extra expense, as there is no reversing mechanism in the revolving unit. It is the same principle that is used in sugar factories for separating molasses from the granulated sugar. I understand that quite a number of beekeepers are already draining their cappings in this way and then storing them, to be rendered into wax later when the rush of harvest season is past. Having used a bilateral extractor with a great deal of satisfaction from the very first moment they were on the market in America, I have tested this method of draining cappings and do not like it. It seems to me it is again something for the smaller producer, who does not notice so much the labor and muss of it. Where you are extracting seven to eight thousand pounds daily, as we do, with two men operating, and the honey is more than half capped, the amount of cappings handled in a day is pretty large. After they have accumulated for a certain length of time it is necessary to stop extracting, put extra fittings into the machine, shovel in the cappings and wait for them to be extracted. Then they have to be shoveled out again and stored away somewhere, packed in barrels or boxes, for future reference. Perhaps if I had not developed my own system before this method was brought to my attention I would have learned to like it, but after a

fair trial it does not appeal to me at all.

What is really the deciding factor is the need for artificial heat in the process of extracting honey at a central plant, where the hive heat is entirely lost from the combs before they come to the uncapper. This and the many other uses one can make of steam in an apiary building places a fair sized boiler among the necessary items of equipment. Whether a steam engine is used for running the extractor depends on the location of the boiler. I believe I was the first to run a power extractor by steam, and now quite a number are following my example. If the boiler and extractor are on one level and near together, the steam engine is all right. With the boiler down in the basement and extractor upstairs, I would not advise it, as firing for an engine takes a lot more attention than just firing for a capping melter and knives.

In building a central plant many prefer to extract on one level and allow the honey to run by gravity to store tanks below. The boiler would naturally be in the basement and its waste heat would help to keep the tanks warm for clarifying. The capping meltors used in the extracting room above can be built with steam coil enclosed in the water chamber of the original Peterson melter, having a return pipe to take condensed water back to the boiler. They can have special jets for attaching steam-heated knives. This probably uses the steam to the best advantage, and except for one objection a small steam engine completes the system. Unless the boiler is fired with gas or oil, it will almost be necessary to have someone working in or near the boiler room who will attend to the fire, otherwise the man who operates the extractor will have a great many trips up and down stairs.

After much study and experimenting over a period of more than ten years, I am still strongly in favor of uncapping directly over a melter in an extracting room on the ground floor and on the same level with honey rooms, boiler room and garage. We have pumped all our honey since 1912, and have melted all our cappings directly from the knife, letting the melter honey run in with the rest, for almost as many years, and "Pettit's Honey" holds a high reputation wherever it has gone in every part of Canada. We start in the morning with clean meltors and sharp, steam-heated knives. There are two men working. One brings the full supers on a floor truck from

where they are stored in the boiler room, uncaps, and also places empty combs in supers. The other acts as fireman and engineer, puts the full combs into the extractor, takes empties out and uncaps. By 6 o'clock from seven to eight thousand pounds of honey is in store tanks, the cappings are reduced to liquid wax cooling in moulds, we have had a good hour to rest at noon and are through for the day. This is not a record run, just our regular day's work. It may not be so terribly fast, but it gets a lot of honey out of combs and into tanks in a week, and, best of all, there is no aftermath of a mess of cappings.

A valuable feature of the system is the improved clarifying gained by having all that hot honey go into the tanks with the cold. Then, so far as the cappings are concerned, you are through with them right there. There is no bulky, sticky mess to handle and drain and store and later have to be rendered anyway. The hot honey and wax flow from melter to separator and the honey is piped from separator to pump. I like plenty of honey to go over the melter, as it keeps the mass moving faster, with less time to overheat. If the wax is not fully melted when it leaves the hot plate, that is best, it will separate from the honey all right, and that is the main thing. In cleaning up, before 6 o'clock, the wax and honey remaining in the separator are dipped into moulds and next day dumped into an old uncapping can for the honey to drain off the cakes of wax. These last dregs of honey are kept separate and sold as manufacturing honey.

Manufacturers tell me they are selling fewer capping meltters, and assign the reason that most beekeepers leave hired help to extract while they take off and draw in, stating that under those conditions they want as little machinery as possible, so as to have the inside equipment more "fool proof," which is a stock phrase used with apologies to the help. Personally, I think it pays me to run my own machinery, and I could not bear the thought of messing with cappings as an extra task after the day's work of extracting. My meltters are built locally especially for my needs. They resemble the Peterson outwardly, but are strongly reinforced with bar iron half an inch thick placed crosswise in the steam chamber and fastened to upper and lower metal every couple of inches. The steam enters this half-inch space at one end of the melter and escapes at the other as hot water or cool steam, which is piped out through the wall of the building. Being on the same level as the boiler, I cannot use the re-

turn used by those whose boiler is downstairs, but this loss is greatly overcome by the other gains.

During the rush season this year a neighbor beekeeper called up to know if I would buy his cappings. He explained that he did not use a melter because it looked messy when visitors came in to watch the extracting, and now he had a lot of cappings on his hands that he did not know what to do with. I told him that I had been through all that, that I knew just what kind of a fix he was in and that I would not be in the same sort of mess again for a good deal. I had troubles of my

own and left him to work his way out as I had done in former years. He had a steam boiler and only needed to uncaps over a melter to get out of all his troubles.

Cappings can never be melted so economically after they have drained and the honey has granulated as when they are just fresh from the knife. If care is exercised to get them away from the heat just as soon as they are hot enough to separate, the alteration of color and flavor of the crop cannot be detected and a very considerable bill of expense for time and labor is saved over any other method of disposal.

## From Farthest North Scotland

HERE are two letters, from the extreme north part of Scotland, Halkirk, Caithness, which we know will be interesting to our readers. They evidence one fact very plainly: that is, that bees, like all other beings, adapt themselves, sooner or later, to the climate which they have to withstand. These letters were sent to Mr. Kaufman, of Kalispell, Montana, a few miles south of Glacier Park:

"I live up in latitude 59 and we find no bees to excel the old British blacks, as it is too cold for Italians. They start to breed too soon in spring and exhaust themselves going out in cold, windy weather, but the blacks are more weatherwise and do not waste themselves; also they keep up a higher temperature in their hives. I have tried Italians and American strains of them over and over again, trying to get them acclimatized, but it is no use up here. Our honey season only lasts six weeks here and sometimes half of that is bad weather, but I had an average of eighty pounds per colony and also increased them to double the number I started with in spring. Some of them even had 140 pounds, and as we got from 36 to 44 cents in your money, per pound, it pays all right. I like your American papers and always get the American Bee Journal and Gleanings, and have read most of the books written by your best American authorities on bee-keeping.

With apologies for troubling you, and good wishes for your success in the incoming year, I remain,

Yours truly,

James Barnetson.

\* \* \*

Georgemas Farm,  
Haskirk, Caithness, Scotland,

March 4, 1927.

Dear Mr. Kaufman:

I was more than pleasantly surprised when the postman arrived today and brought me your little bag

of Tamboo Proso (a variety of millet). It arrived quite intact, not a burst or break and not a seed lost. I feel just as pleased over it as when my father bought me my first pair of skates when I was a little boy, and you can imagine how keen that pleasure is. I am going to send a one-fourth pound of it down south to a cousin who has a farm near London, 700 miles due south from here, and who will be delighted to give it a good trial. They have much more sunshine down there, and heat, and if it happens that we have too little sun for it up here it will be putting two strings to our bow to get some grown down there. They have a summer temperature of 80 to 90 degrees down there, while we only run from 55 to 65 here, with a few days at 70. I am enclosing you a money order for five shillings, as I notice the customs declaration marked one dollar. Now perhaps you would like to know how I finished up my sales of honey for the season and also what our native Scotch black bees can stand in the shape of bad weather. I sold the last of my second grade honey two days ago for 1s 6d per pound—36 cents—and when I calculated my net profits after valuing my increase in stocks I had a clear profit of \$5 per colony (pounds, not dollars) spring count. The only danger in beekeeping here is Isle of Wight disease. It is a small mite which infests the lung tubes of the bees, and there has been no sure remedy or treatment found for it yet, and the only hope we have is to breed resistant bees by natural selection of the survivors. It doesn't spread from the honey and never attacks the brood, and a fortnight after the stock dies out you can put a fresh stock in the hive and they go on all right, as the mites die within two or three days of the death of the bee which contains them, and it is only spread by bees going into one

another's hives, which they do to a greater extent and over greater distances than we generally give them credit for. I have known it to jump over eight miles in summer, and probably by means of wandering drones.

Well, I have tried various experiments in testing how much cold and how little insulation bees can thrive under. Our winter temperatures here run from 35 to 45 degrees from November till the first of March, when it rises to about 48 degrees in daytime and falls to about 40 degrees at night, with occasional cold snaps of from 12 to 20 degrees of frost right up to the middle of April. The cold snaps don't last longer than from about three days to a fortnight at furthest. Well, I have about twenty old frame hives, made of half-inch boards, and I covered (for several years) half of them with six inches of drawn straw tightly packed and absolutely waterproof, and before doing so gauged the hives for strength and stores as near as possibly equal, to give a fair trial, and found that the naked half-inch hives of unpainted wood were the liveliest in May and built up to strength for the honeyflow soonest.

I had some double-walled hives packed with four inches of the driest and best sawdust I could get, and found that they were no better than the unpacked ones. I also tried some with the entrance full open all winter, and the hives pulled back over the bottom board, so as to give them an inch at least of draught at the back, also left a half-filled rack of sections (unfinished) over the frames and two sheets of a newspaper over the top, as some cover, and they came through in spring just as strong and healthy as any and consumed no more stores, either.

Now, if you knew that we have gales blowing about forty to fifty miles an hour two days out of three, all the winter, with lashes of rain at least twice a week, from November till the end of March, when there isn't snow or frost, you can come to the sound conclusion that our bees are wonderfully hardy. I remember once that some boys who had more than an ordinary desire for honey broke into two of my hives in the middle of winter, threw the roofs and quilts off, took out a few of the frames and left the hives open. A sheriff might call them thieves, but it's not a polite designation for fellow countrymen. Well, I didn't notice the accident for about a fortnight, and when I did I expected to find the bees all dead, as there were some healthy rainstorms meantime. Not at all. I found them clustered densely, well down among the combs,

and I just covered them up and waited for spring, to see what would happen. They came out all right and did well next summer. Italians can't stand the same cold, and, with us, when you winter-pack them, they start to breed too early in spring, come to full strength about three weeks before the honeyflow comes on (from June 25 to July 1), then go stale and only build up again about the end of the flow, while the blacks have the instinct of bucking up at the right time, if left alone, and throw their full strength out just at the right time. Our honey-flow only lasts six weeks, and on the average half that time is bad weather.

I have been playing with bees for thirty years and there are only a few real essentials here, as the bees can adapt themselves to the rest. They want a fairly big hive, about the size of your Dadant, so as to have plenty of stores, in reserve, for all eventualities of weather. Leave them as much alone as possible, as every time you open up their hive you disorganize their working arrangements, and, in our climate, if you wish to produce first-class sections, pack between the section crates and the outer walls of your hive with the warmest packing you can get—three inches of it at least—and I find fine meadow hay to do best. With cool weather and chilly nights even in the height of the honeyflow, if they are not packed they stop work or waste time trying to raise the temperature to work their wax and evaporate their honey, and that means low grade sections and a much smaller quantity of those. Perhaps in your climate, if it is very hot, you may need ventilation; and in winter, with your zero weather, you may need packing even for blacks. However, I have seen reports from Scotsmen far north in Canada, where they did quite well without winter packing.

We had a meeting of our agricultural society today and I handed over one of the samples of Proso you sent me to the president, who handed it all around. The farmers were all very interested and I gave the packet to our agricultural lecturer. I had only given him a few seeds before, but now I have your 1 1/4 bag, I felt generous. We also had a very pleasant little ceremony. The association presents a finely framed certificate and silver or gold medal to the farm hand who has the greatest period of service to one master or on one farm continuously in our county. So this year I put in a man of ours for it (John Steven). He came to work for my grandfather in 1865 as a boy of fourteen and is still going strong, having served my grandfather, my

father and me, without a break, for over sixty-one years. We have put all others in the shade, as it is a record for the county, and I think for Scotland, and I am not sure if you can beat it in America. When he was in the prime of life he was one of the finest looking men I have ever seen, and was the envy and despair of the recruiters for the life guards and London police when he was young. He always told them when they tried to enlist him that their pay was too small for him. I will send you a copy of the local paper with a report of it. He has never married and lives in the farm house with us, in the same room as he did when he came to my grandfather, and is as happy and as healthy as a boy yet. I think you will be pretty well fed up with my letters now, so I will close up.

With kindest regards, I remain,

Yours sincerely,  
James Barnetson.

I heard on my wireless your President Coolidge making a speech about a fortnight ago. Brings us close, doesn't it?

## Front Door or Back Door—

Which Opens Easiest to Honey Sales?

By M. R. Westover  
Illinois Glass Company

Recently I was laid up at home with a rather annoying bronchial cough, so instead of getting the run of routine matters at the office, I got the run of routine matters as they come to the housewife each day. Among the callers during the afternoon was a well dressed, nice appearing gentleman who came to the front door, rang the bell, and then, after a very courteous greeting, suggested the purchase of a five- or ten-pound quantity of honey. I purchased five pounds.

Had this man come to the back door, dressed in rough clothes, as the farmer peddler so often is, he would have had no chance to present his story, because, having classified himself as a peddler by his clothes and his solicitation at the back door, he would have been dismissed as quickly as possible. Or had he been permitted to present his story, it would have been with a disadvantage of the stigma of peddler attached.

Now here's the point as it occurred to me: A suggestion in your magazine to the beekeeper that it pays to dress up and make front door calls might help him to sell more honey. I know that I, personally, was greatly pleased with the idea of this man's method of solicitation first and delivery later.

# "Salvage"

By Newman I. Lyle



Scrapings such as adorn every bee yard

THE word salvage brings visions of shipwrecks at sea and the attendant rescue of seafaring people; the saving of the ship and prize money in reward. Webster says, "Compensation for saving a ship or her cargo; property saved." It is with the latter part of the definition that the beekeeper is concerned.



Comb with corner gnawed out

During three years which the writer spent as Extension Specialist in Iowa, enough waste was observed in bee yards to assure a luxurious living. Bee yard salvage is, or should be, an every-day affair. Many old hives may be repaired, repainted and brought back into use, good for many additional years of service. Frames with broken end, bottom or top bars are given a new lease of life by repairing broken parts. True, many beekeepers consider a broken frame a thing not worth repairing. Frames at 10 cents each are worth saving. By the investment of a few cents' worth of time and perhaps another cent's worth of repairs, six or seven sound frames may be made up from ten badly broken ones, good returns

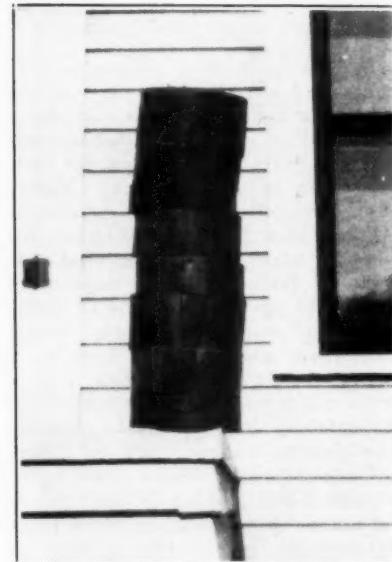
for an hour's spare time. In changing to wide sheets of foundation, old frames may be used by knocking out the old bottom bars and substituting split or slotted bars. If the beekeeper has a circular saw, the old bottom bars can be split with a minimum of labor. Now that heavier wedges for fastening the foundation to the top bar have become popular, the circular saw also can be used to rip proper sized strips from old pine boards. These with the slotted or grooved bottom bar bring your old-style, corner-cut frames up to date.

Sections with partly drawn combs are too often destroyed. They should be saved and given to the bees in the first supers, the next year, as bait. A super entirely filled with bait combs is the best thing in the world to start storing. A colony busily storing in bait combs is already half way prevented from swarming. Textbooks and beekeeping magazines say, "Use the partly filled sections at home." A good idea, but save a few for bait, especially if they are very poorly filled.

One successful Iowa beekeeper, Mr. E. M. Cole, of Audubon, extracts the poorly filled sections and saves them as the best possible "starters." He claims each colony started on a full super of "bait" will, as a rule, make a full super of honey more than one started in the usual way.

Many a colony goes into winter quarters too light. There are a number of reasons for this. One is neglect; all the other reasons and excuses usually turn out to mean the same thing. Even as late as November 1, colonies can be fed. Occasionally a colony may be missed in the fall checkup, and when packed is far too light. Feeding, as ordinarily practiced, takes time. The beekeeper cannot return to an out-yard and replenish feeders every few days. It is necessary to do something, and that at once. Several Miller feeders of thirty-pound capacity were devised. These have been packed with strong, but very light, colonies as late as November 15. The feeders were completely filled with very heavy syrup. The next spring, year after year, these colonies invariably wintered exceptionally well. Two good colonies saved over by this method will buy gas for the flivver for a long time.

"Combs are the wealth of the beekeeper," as Mr. C. P. Dadant has often said. Many a fine comb is rendered into wax or allowed to be destroyed by moths, simply because of either a mouse gnawing or a patch of drone-comb. These combs are



Also scrapings, but now salvaged

easily saved. Cut out the drone-comb in a square piece, or square up the gnawed hole. Then lay the comb over a sheet of foundation and cut a piece exactly the size and shape of the hole. Fit this into the comb, cementing the edges all around with melted wax. Wire can be imbedded if there happens to be any across the



A neatly mended corner of same comb

aperture. A number of small square and rectangular blocks can be properly assembled to span the patch. These are laid on the bench and the frame laid over them; then imbedding can be done in the usual manner. This patched comb should be placed in a strong colony, preferably above, in the extracting super and will be built into as pretty a comb as you could wish. The beauty of this is, it takes very little time compared with cutting out the old comb and inserting a full new sheet. Think of it! A comb salvaged, time saved and some money as well. The photos illustrate this very well.

Scrapings! A word laughed at by some. However, they do count up. The photo of inner cover and top

bars of hive shows a large accumulation of burr-combs. As an experiment, burr-combs were scraped rather

often in a small apiary of thirty colonies. The result was twenty pounds of wax.

## Honey at the Toronto Royal Fair

By L. T. Floyd

**A**MONG the various farm products displayed at the Royal Winter Fair, Toronto, honey occupied a prominent position. The fair was held November 14 to 24, and as 1927 was the Jubilee Year of Canadian Confederation, nearly all the provinces assembled large exhibits representing the natural resources peculiar to each.

British Columbia, Saskatchewan, Alberta, Nova Scotia and Quebec each gave honey a prominent place among these exhibits.

In the British Columbia exhibit, honey occupied the exact center in a revolving pyramid carpeted with comb foundation and built of comb and bottled honey, mostly in one-pound jars, making a very attractive center for their huge exhibit of fruits, grains, grasses, and other agricultural products.

Quebec used honey in a pyramid built with one side maple products and the other honey in fancy jars.

Saskatchewan had around half a ton of honey in their showing, while the others had lesser amounts.

This was the first year that open classes for honey were allowed by the management.

The writer has urged continually, since the organization of this fair, for the recognition of beekeeping, and this year had the satisfaction of having his efforts rewarded and also assisting in making the competition exhibits one of the interesting points in the Fruit Building.

This is the first time that eastern and western Canada have met in competition, and some interesting discussion resulted. The classes were judged by Mr. Couse, of Streetsville, Ontario. There were thirteen entries in these classes from Ontario: twelve from Manitoba, five from Saskatchewan, three from Alberta, and one from New Brunswick.

The awards were made as follows:

### Light Extracted Honey

10 lbs. in 1-lb. glass jars

Mrs. John Mumby, Hayfield, Man., first.

P. C. Colquhoun, Maple Creek, Sask., second.

H. G. Luther, Lethbridge, Alta., third.

### Granulated Honey

10 lbs. in 1-lb. glass jars

H. G. Luther, Lethbridge, Alta., first.

J. Mackison, Hayfield, Man., second.

Mrs. John Mumby, Hayfield, Man., third.

### Buckwheat Honey

10 lbs. in 1-lb. glass jars

Temple Bros., Toronto, Ont., first.  
John McArthur, Toronto, second.

### Comb Honey

12 sections in glass case

Roy Mullin, Myrtle, Man., first.  
T. H. Mack, Lumsden, Sask., second.

### Beeswax

Not less than 10 pounds

J. Mackison, Hayfield, Man., first.  
Gordon J. Moir, Killarney, Man., second.

Roy Mullin, Myrtle, Man., third.

### Display of 500 Pounds Honey

Toronto Beekeepers' Association, first.

In the latter class there was only one entry.

Regarding the discussions, there was a decided prejudice against sweet clover honey in the East at the Ontario convention, which was in session while the fair was on. Speaker after speaker stated that they wanted no sweet clover honey.

At the fair, sweet clover honey, except in the display and buckwheat classes, won all the prizes, and the awards were placed by a judge who produces alsike clover honey almost entirely.

As the writer was packing up at the close of the fair, a gentleman stepped up and inquired if he could purchase a jar of the prize honey. When he was informed that he could have it, he said: "I don't want sweet clover honey; I have produced a lot of honey myself and I don't like it." I removed the cover from one of the jars of pure sweet clover and asked him to taste it, but I did not tell him that it was sweet clover. He produced his pocketknife, took a generous sample and ate it, and, without making any comment, put his hand in his pocket and paid for it and walked off with it.

I can readily see that if we are to market any of our western honey in the East it would never do to label it sweet clover honey.

In the West, some of our dealers, who are more interested in making sales than investigating the source of their supply, advertise and sell alsike clover honey as "Ontario Sweet Clover Honey."

It looks as though the future position of honey at this fair will develop into a contest between the East and the West, and with alsike and sweet clover competing for the honors. As it stands now, sweet clover has won the first round.

## Western Bee Men Active

By Walter L. Clark

To formulate and outline plans for the five-state convention, a two days' session was held in Boise, Idaho, on November 29 and 30 by the board of directors of the Mountain States Honey Producers' Association. This will be the annual meeting of the honey association membership. The place and date selected for the convention are Boise, Idaho, and January 21, 1928.

The directors also discussed a sale and price policy for the remainder of the year. The association comprises honey producers in Utah, Montana, Wyoming, Idaho, and Oregon, which state has recently joined with a large membership. Mr. Kjosness, the general manager, says that approximately \$400,000 worth of honey will be marketed by the association during this year. The directors are: J. M. Stark, Middleton, Idaho, president; Charles H. Ranney, Lander, Wyo.; O. A. Sippel, Bozeman, Mont.; A. W. Anderson, Salt Lake City, Utah, and Frank Beach, Burley, Idaho.

The directors adopted a rule that, in the future, districts may be created in states having five thousand colonies of bees. Utah, Montana and Wyoming were made districts, and Idaho was divided into two districts, the southeast and the southwest, with a total of about fourteen thousand colonies of bees.

### Rapidity of Growth

The growth of the association to date has been beyond all expectations. On July 1, 1927, there were 22,000 hives signed up. This total grew to 26,000 hives on August 1, to 35,800 hives on September 1, to 44,000 hives on October 1, and then to 55,000 hives on November 1, an increase of 150 per cent.

The association has sold to date forty cars of honey, consisting of 300 cases, or 36,000 pounds to each car. This represents an annual output of five million pounds of honey. Says the general manager: "We take pride in our achievement in advancing the price of honey from 5½ cents in June to 6½ cents in July, then to 7½ cents in August, and finally to 8 cents in November."

The board authorized the general manager to attend meetings of various state beekeepers' associations which will be in session at specified times from December 2, 1927, to January 28, 1928. Following is a

scheduled list of western meetings and conventions of beekeepers and honey producers' associations: Thermopolis, Wyo., December 2 and 3; Billings, Mont., December 5 and 6; Pocatello, Idaho, December 8 and 9; Salt Lake City, Utah, December 12-13; Grand Junction, Colo., December 14; Manzanola, Colo., December 16 and 17. At Fargo, N. D., there will be a meeting January 19 and 20, and at San Francisco, Cal., on January 26, 27 and 28.

## The Humble Bumblebee

By Theodore H. Frison

SINCE I have been studying the ways of the bumblebee folk since 1910, it is but natural that Mr. A. W. Macy's article, "I Sing the Humble Bumblebee," published in the November, 1927, number of the American Bee Journal, page 586, should have especially attracted my attention. I, too, join with Mr. Macy in his praise of these useful insects and in a plea for their protection. There are several statements in the article cited, however, which deserve some discussion.

The number of families of bees cannot be dogmatically stated as fourteen. Some students especially interested at the present time in the classification of these useful insects consider them as divisible into but five families. It is true, however, that the North American bees have been assigned to fourteen families, and one specialist of repute has placed them in sixteen families. It is all a matter of the point of view of the individual specialist. In the hands of some scientists, certain small natural groups are elevated to families, whereas others see fit to evaluate them as genera, or even subgenera. The statement that only two families of bees are social and live in communities needs qualification. In Central and South America are found the Meliponidae, the so-called stingless honeybees, which are decidedly social.

To see my burly friends charged with being slovenly housekeepers calls me forth in their defense in much the same spirit that fond parents rush to the defense of their offspring. Bumblebees keep themselves scrupulously clean when in good health, and incessantly labor to keep their comb or nest in proper order. It must be remembered that the life of a colony of bumblebees is short, much work must be done by a comparatively few individuals to insure even the preservation of the species, and that the comb must develop under necessity in other than improved, man-made quarters. A comparison of the natural homes of a colony of wild honeybees, white-faced hornets, or yellowjackets with

those of bumblebees will reveal them in a different light.

Passing from the realm of sentimentalism to facts, I cannot agree that female bumblebees "do not try to destroy one another." The queens of some species, in spring, frequently fight for possession of the same nesting site, and sometimes dead queens to the extent of two or three in a single nest bear mute testimony to the battles that have ensued. Upon one occasion I even found a small colony of one species of bumblebee being ruled by a queen of another species belonging to an entirely different natural group. Workers sometimes show egg-laying propensities and accordingly are often severely mauled by the mother queen in the nest. To be sure, the young queens produced in late fall or summer do not fight with the old queen or each other. Competition has not yet reared its head in their midst; that is postponed until the next season. It frequently happens, too, that when some of the new queens emerge the old queen has passed to her reward beyond.

Mr. Macy's reference to the old fable of bumblebees acting as alarm clocks, unfortunately bequeathed to succeeding generations by no less distinguished student of bumblebees than the celebrated Hoffer, needs the removal of the "probably." Anthro-

pomorphic outbursts have been the bugbear of the biological investigations of social insects for many years. The trumpeting recorded by Hoffer had to do with the ventilating of the nest; a matter of easy demonstration and a happening of frequent occurrence in summer with colonies under artificial conditions.

Since Emerson's delightful poem, "The Humble-Bee," has been quoted, I feel called upon to take the poet laureate to task for his "zig-zag steerer, desert cheerer." Deserts are poor places to look for bumblebees! However, for the sake of his poem, I am willing to allow him the customary poetic license. Illinois.

## A Letter With a Pleasant Flavor

Letters like the following are wonderfully pleasant to receive. We do not feel very often like annoying our readers with private correspondence, but this letter is so home-like that we thought our readers would enjoy reading it. Mr. Dadant, senior, is only a little over three years younger than the writer of the following, which comes to us from Waco, Texas:

Nov. 15, 1927.

Dear Mr. Dadant: In a short time I will be 80 years old, and after reading your good Bee Journal for more than ten years I would love to tell you how I have enjoyed it and how much I appreciate the many good things you have written, but I have no language to express my appreciation. I sure enjoyed your "Boyhood Recollections" and what a time you had in getting from the old country to America. Many single copies of your good Journal have been worth more to me than a whole year's subscription.

I have enjoyed my bees for more than forty years. About ten or eleven years ago I bought a crate of five eight-frame hives from Uncle Hill Hackney at Oglesby, Texas. They had never been uncrated. He said he bought them from C. P. Dadant. He gave me a couple of American Bee Journals and they started me to reading about the bees, and I have read thousands of pages about the bees since; and I don't know how many good bee books I have read, including "A, B, C, & X, Y, Z," and many others, and have taken four bee journals in one year, but now I have got old and crippled and can't work with bees any more if I don't get better. I have rheumatism in my right knee and it is so sore I can't put any weight on it. Eight months ago yesterday I fell and broke my hip, and I hobble about the house on my crutches. I could not sell my bees, and let them out on shares this year. They made

### A. Gillet Croix a Leader in Belgium



A Belgian beekeeper and contributor to the magazine "L'Apiculture Rationnelle," and author of "Precis D'Apiculture et Selection des Reines"

\$6.50 per hive. I offered to take \$5 a hive for them. I have twenty hives now, and about that many empty hives. If I can't sell them, and if I live till spring, I am going to order from you wired foundation and a hundred or two slotted bottom bars and some corner-cut top bars. Not many men can put foundation in frames and wire them so they will have good, straight combs.

Well, Mr. Dadant, you know now that my education is very limited, but I wanted you to know how I appreciate you and your Bee Journal and C. C. Miller and A. I. Root and their good books which I have, and when you pass over, if I happen to be living, how sorry I, with all the rest of the beekeeping fraternity, will be.

## My Observations on Swarming

By Eugene Holloway

After reading the note "About Swarming" on page 572 of the November, 1927, American Bee Journal, I shall give a few facts in regard to this subject, observed by me during the past three years.

The honey crop in this part of Oklahoma was a failure in 1925, and of course we did not have any swarming. Nineteen and twenty-six gave us the best honey season we have had in eight years, bees storing a surplus of 123 pounds of bulk comb honey per colony, spring count. We also had considerable swarming in June. Nineteen and twenty-seven was poor; bees stored only 45 pounds per colony, spring count, which all came from an outyard that was located near a sweet clover field. The horse-mint flow was a failure. It is our main honey plant in this country, but very uncertain. Bees did not swarm much in spring, but several colonies swarmed in July and clear on until the last of August, or until all surplus honey had been removed from colonies.

We have had a fine fall flow, which has enabled practically all colonies to gather plenty of honey for winter. This flow came in October, from broomweeds. We have had a very fine fall for bees to work; lots of sunshine, with just enough rain to make the flowers secrete nectar.

Oklahoma.

## Wonder if They'll Say "Twas a Bee Stung 'Em"?

By J. B. Dillon

Otto Rauchfuss was driving along toward his ranch near Englewood, Colorado, and when a few hundred yards from the apiary, he saw, or at least he thought he saw, one of the hives moving. Now Otto has seen or heard of every kind of swarm that ever swarmed, and so far he

refuses to believe that in any swarm have the bees carried off the hive. However, Otto cried:

"Stop right where you are!" saying it real mean.

Buckitty, buck—went four feet, and the two men who were robbing the hives heard a loud report, and then both their hands touched their west side.

Oh, yes, the west side is where the sun sets, and Otto says that he is of the opinion that some sons will find it a little uncomfortable to sit for a few days, thanks to his 12-calibre shotgun.

Now then, be not alarmed if you read of how hard the Englewood, Colorado, bees can sting, for verily two men got STUNG.

## Florida Honey

Some people seem to have the erroneous idea that we beekeepers here in Florida cannot produce much honey and that what we do produce is of an inferior quality. This idea is far from the fact. We do produce honey in Florida. For instance, H. H. Tussey, of Alva, took one ton of black mangrove honey from five colonies this year. These bees were in Modified Dadant hives. A. C. Lundin, Tampa, had two colonies that produced over 500 pounds apiece. C. C. Cook, LaBelle, has extracted

## A Beekeeping "Weed"



A plant out of place is called a weed. So bees in something else than hives make the "weeds" of beekeeping. Good farmers make war on weeds.

over 100,000 pounds and has 40,000 or 50,000 pounds more on the bees.

As to the quality of our honeys, we have some of the best table honeys. Our tupelo honey is known in the honey markets in all parts of the world. It brings a premium because it does not granulate. The orange honey also brings a good price and is hard to beat. Gallberry, saw palmetto, cabbage palmetto, sunflower, mangrove, goldenrod, are all fine table honeys. Just because honey is not water white is no sign that it is not a good table honey. In fact, I believe from past experience in selling honey that an amber or light amber honey will sell better in a large per cent of the markets than a water white honey.

I have a jar of sunflower honey sitting on my desk packed by J. H. Booth, LaBelle. Ever so many people have remarked that they have never seen a nicer looking package of honey. It is beautiful, clear as a crystal, and a light amber.

Some day Florida will be known as producing the finest honey in the world.

Robert E. Foster,  
Apiary Inspector.

## Notes from Utah

Price was the shipping point recently for two carloads of honey from the warehouses of the Mountain States Honey Producers' Association, A. M. Anderson, secretary of the association, reported at a meeting of the board of directors of the Chamber of Commerce. Directors of the Eastern Utah Creditors' Association also attended.

Mr. Anderson stated that there was in storage in Price warehouses more than 50,000 gallons of honey. The association which he represents has branches in five states, but in this section of Utah, particularly, there are the counties of Emery, Carbon, Sanpete, and Utah, as well as most of the Uintah Basin, which use Price as a shipping point. Honey, in the opinion of Mr. Anderson, will take its place as a leading industry in this section.

Methods of popularizing the product through the medium of an intensive advertising campaign were also discussed. A special committee will be appointed for an education program in the near future by President Orson T. Brooks, as a resolution to this effect was passed at the recent session.

Glen Perrins.

## A Lively Association

The association of "The Swiss Friends of the Honeybee" had a meeting at Schaffhouse, September 3-4. At that meeting they had a banquet of 420 covers.—*Bulletin de la Suisse Romande*.

# The Races of Bees

## 1. WHY BEES DO NOT MIX

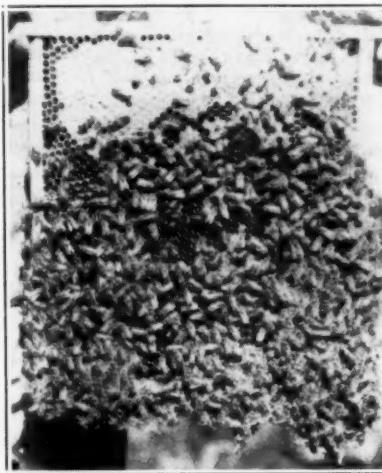
By Ph. J. Baldensperger

HAVING been on a visiting tour in Scotland and England during August and September, I had to some extent neglected the reading of American Bee Journal, not altogether, but have only looked it through superficially. I noted many passages which I would like to analyze, so to say, but you know what it is to be away from home and not having time enough.

Your question in the May, 1927, number of American Bee Journal, page 239, as to which is the best variety of bees, shows that this is an unsettled question, and also shows that beekeepers as a rule take notice only of what is going on in their immediate vicinity. Thus you ask, "Are the black and brown bee very positively apart, or are they varieties existing through the country? In France, where both are said to exist, there is no wall between them, no snow-covered mountains to keep them apart; the black bee is said to live in the North, while the other lives in the South. That is all."

Well, good friend, no, that is not all. In our actual condition of bee-keeping, we no longer can talk about walls, or snow-covered mountains which hold varieties of bees apart. Between Italy and the United States, there are countries of dry land and high mountains, and an immense ocean, yet there are certainly a good

many more Italian bees in the States than in Italy. No, bees do not mix so easily along defiles of the Riviera, where mountains rising up to 10,000 feet separate different varieties—



A frame of bees on a Baldensperger comb 25x29 centimeters. Honey in one-third at top.

there are several varieties of bees which hang down from the comb, as your black bee, but neither all our orientals nor our brown bees leave the combs when handled.

Now, let us take up the question more thoroughly, and see how slowly we beekeepers are getting along. We

creep or crawl for years, repeating old sayings with conviction, but we are crawling slowly through darkness to light. For instance, the brood diseases known to the ancient Greeks and Romans over 2,000 years ago have been only studied since Langstroth and Dzierzon, in the middle of last century, although Schirach found that the gluey foulbrood could be cured only by taking away every comb having contained the disease; although, in 1874, the cause was attributed to a microbe, the real bacillus was only discovered in 1904, and the second was known in 1908 as bacillus pluto. How many years will it take to destroy the false opinion that Italian bees are immune to some bee diseases? Through my visit in Scotland and England last summer, I almost invariably found Italian bees, most badly diseased by American foulbrood, acarine disease, Nosema, addlebrood, chalkbrood. I did not come across a single case of European foulbrood, either with Italians or with any of the mongrels with which the country is studded.

The Acarine disease, which no doubt existed as long as bees have existed, as well as other diseases, in fact many millions of years, has only called the beekeepers' attention in 1904 to the Isle of Wight. And for nearly twenty years, bee scientists, to say nothing of the practical bee-



Baldensperger showing his auditors how bees keep to the comb and do not fly up to sting when properly handled. Nobody has a veil.

keepers, thought that the "Isle of Wight disease" was a kind of monopoly of the British Isles. In 1919 and 1920, French and Swiss beekeepers came across some cases in the Alps, and it was decreed that French beekeepers were guilty of having introduced it. Since then bacteriologists the world over became busy hunting for the mite. And all through Europe up to Russia the mite has been found. Many diseases follow in the rear of the white man. In Cyprus, Syria, the Sahara, where busybodies with infected material did not penetrate, disease to a great extent is absent.

To a certain extent you are right when you say there are no walls nor snow-clad mountains between the north and the south of France. Quite true, but how high must the walls be to hinder bees from flying over them? Just one fact. In 1896 I carried a lot of hives with Palestine bees up the Alps and settled them say half a mile apart from an apiary of French bees. The owner was discontented, but I answered him that our bees would not interfere with each other. There was a slight elevation on the plateau, certainly not exceeding say a hundred feet, separating the two lots. His French bees were on the southern slope and my Palestinians were on the northern slope. Lavender was in full bloom and all bees were very busy collecting the sweets. The plateau was about 2700 feet above the sea level and more or less, at such an altitude, winds must blow, now from the north, now from the south, and they are mostly very mild in summer. As a rule, I never met any Palestine bees on the southern slope, nor did I meet French bees on the northern slope, during our stay of three months. This slight elevation kept them apart. Certainly many beekeepers will not own this, no more do I mean to say that the slight elevation will be sufficient at all events. But let us look backwards. The American settlers first brought bees to New Amsterdam, near New York, in the beginning of the seventeenth century, and as they brought them from Holland, nobody ever thought that Holland had, or still has, a different bee from its cousins further back in Germany, where not the least snow-clad mountains hinder them from meeting; the black bee was simply known as the "German bee" and is still so called in most parts of the States, in spite of the fact that George Lehzen already thirty years ago published that the heath or heather bee of Luneburg was a different bee, and only in 1906 the heather bee was called "*Apis mellifica* Var. *Lehzeni*," to distinguish it from the typical brown bee "*Apis mellifica typica* or *mellifica*."

But Lehzen was not the first bee-keeper or observer to notice the fact. Charles Darwin, the renowned naturalist who lived at Bromley-Kent, remarked that there were darker and smaller bees in the forests, and he wrote to Dzierzon in 1862 to ask him whether he did not notice a difference in the bees of his country. Dzierzon answered in the bee papers of these days that the Luneburg heather bee, about Hanover, was smaller than the native bee of his region in Silesia. He said, too, that the Luneburg bees swarmed extensively and even sent out swarms raised by second swarms, and that they built drone-combs and reared drones in them in the same year, which does not happen with his brown bees at all.

Now, if you simply consult a map of Europe, you will notice that one-half of all rivers in France flow from east to west, towards the Atlantic Ocean or the English Channel, and in Germany from south to north, towards the North or Baltic Seas, while the other half flow mostly from north to south towards the Mediterranean or Black Seas. Of course, there must be mountains which are the watershed lines running in France from the Cevennes in the south to the Ardennes in the north, from the Eifel, the Erzgebirge, the Riesengebirge, etc., in Germany from west to east. In other words, bees do not voluntarily fly over these mountains from one region to the other if man does not carry them. This again

explains how all lowlands in France, beginning at the Adour in the Pyrenees, by the Garonne, the Seine, up to the Rhine, have a bee slightly different from the bee of the Rhone region, which is all closed up from the western bees. So it is in Germany, and The Netherlands; the lowlands have the smaller black heather bee grouping around Hamburg and Hanover in the Luneburger Heide and all along the North Sea, whilst the larger brown bee inhabits the mountainous regions of Siberia, where Dzierzon observed it about his birthplace, Lowkowitz, or his vicarage, Karlsmarkt, both in Upper Silesia, and thence going west all over the Alpine region of Austria, Switzerland and France to the Maritime Alps along the valley of the Rhone. Before the intensive commerce of bees and forwarding of them from one country to the other began, every region kept its bees. The swarms usually settled about the stock apiaries and in course of many centuries the evolution of all living animals made itself gradually felt. Bears no doubt have one origin, yet the brown bear of the Balkans and the Pyrenees differs a good deal from his far-away cousin, the white polar bear. Lehzen was of the opinion that the heather bee was a product of human selection, whilst von Buttler-Reepen thinks it is a product of natural selection and adaptation. He is very likely on the right side. Old beekeepers never selected.

(To be continued)

## Beekeeping In Australia

By B. Blackbourn

THE climate of Australia is an almost ideal one in which to carry on the business of beekeeping, either honey production or queen-rearing. The active season is a long one, and may be said to extend from October to May. In a few favorable localities bees frequently gather honey during the winter months. It must be remembered by those who live in northern climates and are accustomed to zero temperatures and snow, that "winter" in a climate such as that of Australia is a very different thing. At one time, when traveling from Melbourne to Sydney by the night mail, in the early hours of the morning we passed through miles of country white with frost, but by the time we arrived in Sydney the temperature was that of a summer's day in England. My experiences were confined to Victoria and New South Wales, so that what follows refers to those two states only.

Herbaceous plants such as clovers and alfalfa secrete no nectar in a

hot, dry climate, consequently honey from this class of plant is only obtained in the moist coastal regions and irrigation settlements. The bulk of the honey produced comes from the bush flora, and the largest apiaries are frequently situated many miles from a town. The apiarists either live in the town and work them from there by the use of a car or camp out during the season, living under canvas. It is not uncommon to see a well built iron building for extracting and honey storage, while the owner sleeps in a tent.

The Langstroth single-walled hive is the standard, eight- or ten-framed, many preferring the former owing to its being lighter to lift. Only one other hive is worth mention, and that is the "Bolton," or modified Heddon, consisting of shallow boxes of close-ended frames which are held tightly together by thumbscrews through the sides. The Heddon system is well known in America and has been con-

demmed by the majority of commercial apiarists, so I shall not waste time by going into details.

Many of the largest and most up-to-date apiarists are adopting power extractors driven by either petrol or steam. The advantage of the latter is that fuel can be had for the fetching in the form of wood, and the steam can be used for heating knives, cappings meltters, honey, etc.

After extraction, some apiarists make a practice of heating the honey, running it into large tanks, often kept warm by steam pipes, and allowing it to stand for a few days before putting into tins. By that time all particles of wax, etc., have risen to the top and are skimmed off, while the honey can be drawn off at the bottom quite clear.

It is usually put into sixty-pound

tins which constitute the unit of measurement, and the Australian beekeeper speaks of a crop averaging so many tins to the hive.

In suitable localities immense crops are harvested at times, but there are many setbacks, and even when a large crop is obtained much expense is incurred owing to the difficulties of transport and the distance from markets. Migratory bee-keeping is being taken up more and more every year so as to ensure as far as possible that there shall be a crop of some sort by taking advantage of the different times of blossoming of the different eucalypts.

In a previous communication on Australian honey plants, I mentioned pollen famines as frequently causing heavy loss, especially so when a honeyflow is on, as the bees rapidly

wear out when deprived of this rich nitrogenous food; brood rearing is curtailed, and what few bees are reared appear to lack stamina.

Of recent years a pest has appeared in the form of the Rutherford fly, a species of plant bug, which comes in such millions that the nectar secreted is consumed by them, and the bees are reduced almost to starvation.

Foulbrood is not unknown, the townships often being hotbeds of infection, chiefly through those who keep a few hives as a hobby and then lose interest. The skilful beekeeper with apiaries away in the bush can usually keep clear of this trouble.

Many beekeepers occupy sites on crown land. For this two licenses are necessary, a bee farm license, costing \$2.50 per annum, and a bee range license, which secures the exclusive use of the bee flora for a radius of one mile, at a rent of 1 cent per acre. No other beekeeper is then allowed within two miles. The apiarist has no right to anything but the nectar, and the ground is usually let to a grazier. This leads to considerable bad blood between the graziers and the apiarists, as their interests clash. The grazier likes to have a bush fire at intervals, for he knows that a fire is followed by an abundance of young and tender herbage for his sheep, while to the beekeeper a fire spells loss. There is a heavy penalty for fire raising, but it can only operate in the event of anyone being actually caught in the act, and this, of course, is practically impossible.

Bush fires cause immense losses, often wiping out apiaries and ruining a location by destroying all the nectar-secreting flora. The wise apiarist is careful to keep his apiary clean, clearing up and burning all dead leaves, twigs, and grass, and keeping a clear space burnt off around the apiary to act as a fire-break.

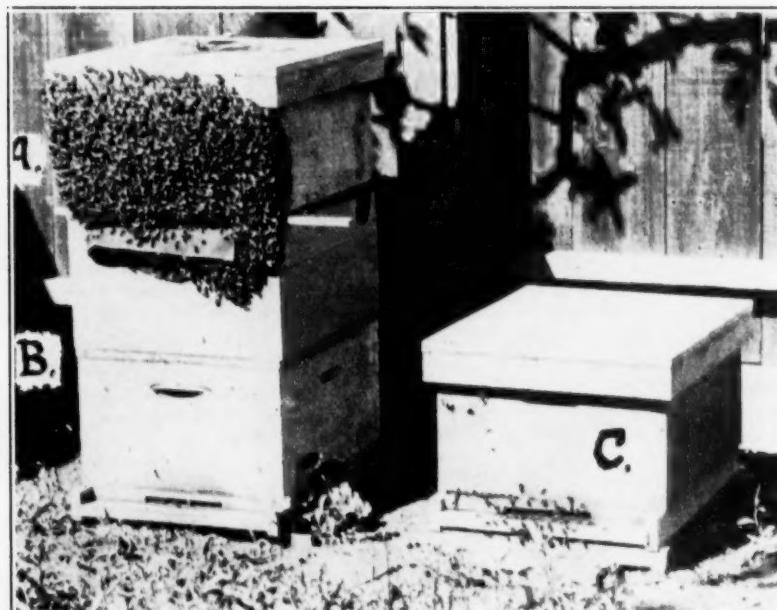
One of the greatest dangers to the future of the beekeeping industry in Australia is that, like most young countries, she has failed to appreciate the value of her timber. Thousands of acres of magnificent trees have been ring-barked and burnt for settlers, who found after a few years of struggle that the land was practically useless for growing crops and utterly unprofitable. Not only this, but the climate has been affected, heavy rains causing floods in the winter, followed by drought in summer.

Kent, England.

## Honey and Cooking Schools

By J. B. Dillon

During the year ending there have been several cooking schools conducted in the city of Denver, Colo-



rado, by the newspapers. No doubt there were many such schools in other cities of the states, and there will be more during 1928 and anon.

The major purpose of these schools—all denials to the contrary notwithstanding—is to further the sale of this and that edible and to prove to the housewives that this and that article is the best. During the school sessions and up to now, it is the writer's observation that the recipes used and published do not contain any suggestions for using honey. Now this isn't fair to the sense of taste or the honey merchants, but who is to blame?

#### Let's Profit by the Experience of Others

The first inkling that we get—and we will get it as soon as the newspapers decide the date of the school—arrange with the advertising manager of the paper to have their "expert cook" use honey. Many who have never had the pleasure of eating honey smeared atop of nice, fresh bread, honey used as the sweetening of cakes, etc., will experience it, and from time to time when these recipes are reproduced honey will be mentioned via the newspaper, and sales are sure to follow.

#### Others Do It!

Many of the first-class butter makers get their product before the public in this manner, and it is undoubtedly one of the best methods known, costs a minimum amount when the results are considered, and unless honey merchants take advantage of it they are overlooking a good sales medium.

### Inspection at Fort Duchesne, Utah

Bee inspectors were unable to clean up the bees in the Fort Duchesne district this season, it is reported to the State Department of Agriculture by D. H. Hillman, State Apiarist. This work will be carried over until spring.

A number of colonies were found diseased at Lapoint, in the Uintah Basin, and a third near Mountain Home, in Duchesne county, and infected with foulbrood. In Cache county some diseased colonies found there last spring have been cleaned up and now are in good condition, the apiarist reported.

### Illinois State Beekeepers' Association

By C. P. Dadant

The twenty-sixth annual report of the Illinois State Beekeepers' Association is on our desk. This is by all means the best report ever published by this association. If every state association published similar reports,

there would be great progress in bee-keeping. Although it contains only 114 pages, it is of great value for the information it gives. It has a large number of engravings, portraits of leading beekeepers, charts, views of apiaries, etc., instructions on treating foulbrood, state foulbrood laws, reports from counties, reports on the distribution of foulbrood, on honey grading, on package

bees, on the new League program, on controlled mating of queens, and a number of other subjects.

The Illinois State Association was organized under a charter in 1891, and has published an annual report since 1901. It has some eight hundred members. Every Illinois beekeeper ought to belong to it. Send to V. G. Milum, Secretary, Champaign, Illinois.

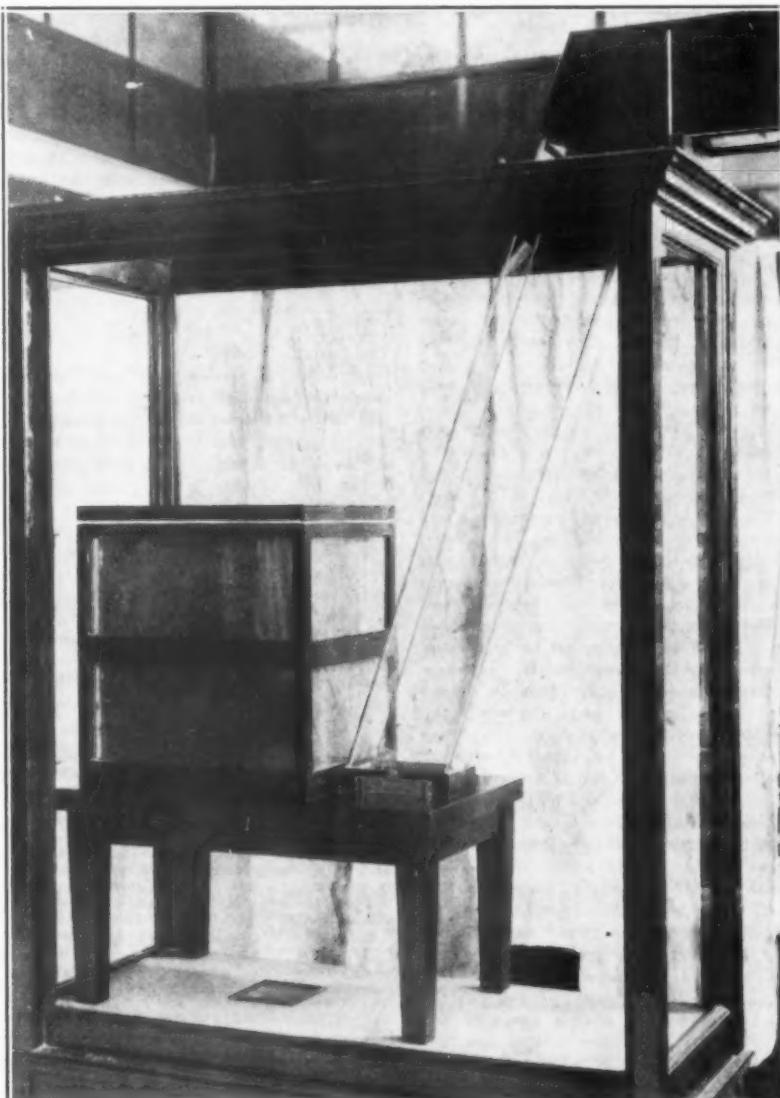
### An Interesting Exhibit

An exhibit of bees in the United States National Museum is proving to be one of the most interesting in the whole building. The bees are busy in their glass hive with a long pipe leading to the entrance in the back of the building. Visitors who are unacquainted with bees do not know of this secret entrance. To them the bees appear to be prisoners within the hive.

Such an educational exhibit does

much to acquaint the public with our product. Various items of equipment are shown, together with placards which acquaint the visitor with important facts concerning bees and honey.

It is reported that Mrs. Coolidge has taken her visitors to the museum on several occasions to see the bees. It is also said that only one other exhibit in the entire museum attracts more visitors than the bees.



## THE EDITOR'S ANSWERS

When stamp is enclosed, the editor will answer questions by mail. Since we have far more questions than we can print in the space available, several months sometimes elapse before answers appear.

### EQUIPMENT FOR BEGINNER

1. I expect to specialize in comb honey production, and want to start with the right equipment. Would you advise me to use the Modified Dadant hive?

2. How come you don't list in your catalog M. D. comb honey supers for 4x5 sections? That size section seems to be greatly in favor around here.

3. Do you have queen traps and entrance guards to fit M. D. hives?

4. If, as I believe, the cells in section foundation are of worker size, why wouldn't it be better to have them of drone size? It seems to me that it would be advantageous in saving wax and bee labor.

5. I expect to start my apiary in our attic. Do you think there is any danger of the combs melting, due to the heat. At what hive-surrounding temperature would this be likely to occur?

6. Is the "hum" of the bee, in all its different pitches, produced solely by the wings, or by vocal organs? What of the "Song of the Queens"?

7. What about an apiary close to the chicken run of a large poultry farm? Any likelihood of hens catching and eating many bees, like the kingbird will? Or would the bees bother the chickens at all? I have a friend who runs a large poultry farm, and if the bees and chickens get along amicably I might start an outyard there.

### OHIO.

Answers.—1. The trouble with most beekeepers who use the Modified Dadant hive for comb honey is that they do not reduce it to the number of combs actually occupied with brood, at the time of harvest, and the bees put too much honey in the brood chamber. Many people use the Miller way, an eight-frame hive in two stories, removing one story with the frames containing the least amount of brood just prior to putting on supers. The combs removed are then given to weak colonies. With the M. D., no combs of brood are removed, only such as contain only honey or pollen.

2. The 4x5 section is not a popular section, much as some people around you may want to use it. The popular section is the regular 4 $\frac{1}{4}$ , all over the U. S.

3. We don't recommend queen traps and entrance guards. We do not use them, neither do the practical beekeepers who produce honey largely. Those implements are too much in the way of the field bees.

4. We prefer to use all worker foundation, because, if the queen happens to be permitted to get into the supers she is less likely to lay eggs in worker-cells than in drone-cells. That is usually what she seeks the super for. But if you wish to use drone foundation, you may be supplied with it. We sell a pound of it for about every ten thousand pounds of worker foundation.

5. I do not think there is any danger of the combs melting down in your attic, if the bees are given free access to the outside with a large entrance to each hive. But you will soon be tired of keeping bees in an attic. Probably the combs can stand a heat of 110 degrees, provided they are not too much loaded with honey.

6. I don't believe anyone can tell exactly what is the source of all the songs of the bees. Probably they are partly emitted from the vibration of the wings and partly by the emission of air through the spiracles. When the queen "sings" she appears to

squat down on the comb, and one may readily conceive that she emits those sounds from her air trachea. See paragraphs 75-6-7 of our Langstroth revised "The Honeybee."

7. Poultry will often eat drones or drone larvae, but never the worker bees. We have often seen bees kept in the poultry yard. But it is a good plan to put up a small wire fence to keep the chickens from climbing on the hives or roosting on them and angering the bees.

If you have no experience with bees, better start on a small scale till you learn to handle them and get over the idea that novices generally get that they can invent a better hive than the existing ones.

### TO KEEP OUT PESTS

1. What can I use to keep bugs and mice out of my supplies during the winter? They get the sections dirty that I had left over.

2. In adding a second hive body in the spring, when should it be done? During fruit bloom?

3. Do pumpkins yield any nectar?

4. I would like to know how to make a top entrance for one hive, as I would like to try it.

Answers.—1. The only way to keep insects and mice out of your supplies is to keep them in a well closed box or in a well closed honey room. You will find that it will pay to have a well closed honey house, even closed tight enough to keep out bees and flies and moths in summer. If you do that, you will have no trouble in keeping your supplies clean, and it will be profitable, besides being a pleasure to you. But sections should be kept covered so that even dust will not reach them.

2. Add the second hive body in spring whenever the first seems to be well filled, not before. Sometimes it is necessary to add a second body with combs of honey if the bees are short. This would probably be before fruit bloom.

3. Pumpkin blossoms probably yield a little nectar, but they give mainly pollen.

4. We have no faith in top entrances, but if you wish to make one, bore a hole near the top of a brood chamber. If it is a round hole, made with a bit, you can easily close it if you are dissatisfied with it. We used to have top entrances, but finally did away with them altogether.

### MOTHS IN COMB HONEY

I discovered some worms on some of my boxes of comb honey. These worms are almost invisible to the naked eye. I first noticed a fine tunnel along the cappings, something like a mole tunnel, only very small. I found one in a cell and studied it through a glass. It had a brown head and white body. These sections have been in cartons, packed in large boxes and stored in the house. Most of them were stored immediately after taking from the hives. Can you account for them getting in the honey, and what they are? IOWA.

Answer.—The worms you mention are undoubtedly beemoth larvae. They are white, have a black head, and are very active. They may be small now, but they will grow very fast in a warm atmosphere. Better kill them by exposing your supers of sections to the fumes of burning sulphur. Bisulphide

of carbon may be used also, but it is an explosive and must not be put where there is any fire. We usually put it on a rag and set it at the top of a pile of supers. Its fumes are heavy and go down among the combs.

A still easier method to kill the moth-worms, now that the cold weather is coming, is to place your comb honey in a room where the thermometer goes down to 15 or 20 degrees. It will kill all the worms. You have probably had your supers of honey exposed some evening where the moths could lay eggs on the edge of them.

### FEEDING SORGHUM

Your article, "Winter Feed," on page 530 of American Bee Journal for October, 1927, brings to mind an experience last spring.

On visiting a farmer one day last spring, he reported a number of dead bees in front of one of his hives. On examination we found that colony starved to death and each of his other ten colonies on the verge of starvation. Their winter stores had been exhausted raising brood, and there was no nectar in the field. The only food available was sorghum molasses, and this was fed diluted with water, after which no more colonies died.

The (sugar) cane syrup referred to in the above article would probably be superior to the sorghum syrup as bee food.

### NORTH CAROLINA.

Answer.—As mentioned in the column quoted by you, sorghum molasses is not very good feed, and some grades of it are entirely refused by the bees. But in the South you may have a better grade, and you have no cold weather to confine the bees. Hence it may be safe. We don't believe in it for the North.

### BEEKEEPING TO PAY FOR SCHOOLING

I would appreciate it very much if you would give me your sincere opinion in regard to the proposition I shall here explain: A young man has kept bees for two years. The first year expenditures were cleared. The second year he averaged \$17 per colony. He produced comb honey in both cases. As this young man is interested in several things, he is spending, and wants to spend, his winters studying, so the thought has entered his head whether or not he could realize good returns by going into this thing more extensively. Comb honey would be the product and keen enthusiasm and interest would eliminate many obstacles. His apiary is located in southern Wisconsin.

His present equipment consists of seven colonies of pure Italians, wintered in two four-colony cases, and the necessary apparatus for increase and comb honey production. He has studied quite a bit on the academic side, but before undertaking such a task he would expect to double or triple his knowledge of the subject.

Leaving this side of the question, here are some of the drawbacks: He would have to borrow the money, fixing \$200 as his goal. Also, his colonies are infected with American foulbrood—only one so far as he knows yet. There are several small apriaries in his community which perhaps also are infected. Can an intelligent beekeeper control this under such conditions without making too big an overhead?

He has thought that he could realize 75 or 100 per cent profit on the capital invested under most conditions. Do you think that this is too high? At this time a very close friend of his is planning to go in with him, using the same amount of capital—\$400 in all.

There seems to be a very good retail trade in the near vicinity, as very little fancy or No. 1 comb honey is produced around there. They feel that this is a sound business deal, but would not venture into it without the opinion of an authority. Your answer will be read with a great deal of interest and thought.

Answer.—If I were in this young man's place, I would not go into the business more deeply until I had made sure of all the foulbrood in the vicinity, by getting the bees of the entire neighborhood examined and

the disease cured. It can be done, and should be done. This will probably require a year.

After that, I would not hesitate to invest the amount mentioned in the enquiry, for it is evident this young man understands the business sufficiently to make it profitable, although he cannot count on making it as profitable every season. But a profit of 75 per cent on the capital invested, if one does not figure the labor, is not at all unreasonable to expect.

#### SCHOOL COURSE IN BEEKEEPING

Will you kindly let me hear from you in regard to taking up a course in bee culture? The college in Logan, Utah, doesn't give that course this year. Possibly you will know if they have that course at the University of California, Berkeley, or at Stanford. If you know anything about this,

will you kindly let me hear from you?

UTAH.

Answer.—The California course in bee-keeping is given at Davis, at the Agricultural College. George H. Vansell, Davis, is the professor in charge. You might write him, or wire him, before starting out.

#### HONEY BOTTLING EQUIPMENT

Can you furnish us the address of some firm which sells the milk sterilizer recommended by E. A. Meineke in his article on page 355 of the July number, to be used in a honey bottling equipment?

FLORIDA.

Answer—Tank—Pfaudler Co., Rochester, N. Y.

Heater—American Gas Machine Co., Albert Lea, Minn.

## Double-Walled Hives

By John Protheroe

Those who have experience of European beekeeping are not always convinced that the single-walled Langstroth is the last word in hives. In fact, the prevalence of many different types of winter packing seems to prove that many in this country recognize its deficiencies. Again, the quadruple winter case has obvious disadvantages. It is large, clumsy, elaborate, and has to be put together and taken down and stored when not in use. Actual cost does not enter the argument; as the French say, all is relative. It is the relation of overhead to profit that has to be calculated. If the cost of the quadruple case increases profits to a higher rate of return, then it is justified. I have heard some curious arguments used against winter packing; a frequent one is that colonies become too strong in early spring and premature swarms result! In compiling a list of axioms for bee-keeping, the following should certainly be included: "There are no such things as superfluous bees." A good beekeeper will always welcome all the brood. Those eggs laid in February and March, those invaluable bees that hatch from them—you say that they can be too numerous! Tush, what sort of a bee man are you? It is presumed that you have a system of swarm avoidance. Well, then, carry forward your manipulations accordingly, and thank Heaven for every bee.

To return to double-walled hives, let me put the question, "Is permanent packing a good thing?" In my opinion, no. Is it warm in winter and cool in summer? My experience is that it is warm in winter and excessively hot in summer. Do warmly-blooded men wear overcoats in summer to keep cool? If the overcoats are of asbestos and the shade temperature is greater than blood heat, then, perhaps, it might be a wise procedure. Otherwise, to be naked in the shade would be a better con-

dition. The British double-walled hive is better than a permanently packed model, because it has what is called a "dead-air space." Better than a dead-air space is a circulating-air space. When the sun shines on the outer wall of the permanent packing or of the dead-air space it raises the temperature to a point higher than that of open shade, because the heated air cannot ascend and make room for cooler air to enter from below. Then what is wanted is a space through which air circulates in summer and which can be filled with non-conducting material in winter. Non-conducting material is always to hand, simply old newspapers. So let us say that we want a hive with a space between its double walls that can be filled with newspapers in winter and which in summer allows free circulation of air. Furthermore, it would not be necessary to keep this space dry in summer, provided that you could keep the packing dry in winter.

The most popular type of double-walled hive seems to me to have a serious defect—it is designed to be used as a ground floor only; supers are single-walled L bodies or shallows. I invariably winter colonies in doubled Langstroths, the top one solid with stores. In the late fall the bees usually occupy the ground floor; they migrate upstairs about the turn of the year. Therefore, in this district the logical thing to do would be to get your bees into a single-walled Langstroth as ground floor during the mild Virginian pre-Christmas season. Above that would be the double-walled packed Langstroth, where they would spend the rest of the winter and—far more important—the early breeding season in the spring. This arrangement would be ideal if it were not a bit top-heavy, and if the permanently packed body had not serious defects for summer use.

The single-walled Langstroth is

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the last word in simplicity, but why be simple if elaboration brings in a higher rate of return in relation to expenditure? American bee books of thirty years ago depict men carrying Langstroth single-bodied colonies clasped against their chests. They were lifted out of the stack in the cellar, cover against chest, hands under bottom board, and so carried up a flight of steps and across rough ground to their summer stands. For this purpose the single-walled Langstroth was well designed; its size, its weight, its shape were well suited for the purpose. To carry a Modified Dadant, weighted down with winter stores, into a cellar—to carry dozens of them—would be some job. No; the Modified Dadant wouldn't have done. The eight-frame Langstroth was the best. But why not recognize the change in wintering methods? Why not consider the large proportion of American beekeepers who are not greatly concerned with mobility? Why not confess that doubled Langstroths or the Modified Dadants are better calculated to carry a strong colony through the winter with full supplies? You cannot carry up and down steps a doubled Langstroth; colonies as good as the modern beekeeper possesses in the fall are not suitable for cellar wintering. They must have all-the-year accommodation on permanent stands.

### Utah Honey to England

Utah honey will sweeten British waffles as a result of a carload shipment of honey that is to be made in the very near future from Spring City, on the Marysville branch of the Denver & Rio Grande Western railroad, according to advices from the railroad company.

The honey, produced by J. F. Ellis, of Spring City, will be shipped to England by way of San Francisco and the Panama Canal. It is believed that this shipment is the first from Spring City to be shipped to England. Utah's honey produced this year is estimated at fifty carloads.

### "High Life" Brought to Earth

In the December issue of the American Bee Journal, under the heading "The Editor's Answers," you stated that you had never heard of "high-life" other than the life which is led by some humans as being beyond their means.

For the sake of information, we would like to advise that "high-life" is a term often used when speaking of carbon bisulphide, and due to the hazard of handling this commodity, we are certain that you will see that the term "high-life" is not far-fetched.

Florida.

## Meetings and Events

### Ohio State Convention

The annual meeting of the Ohio Beekeepers' Association will be held at Ohio State University, February 1 to 3, 1928. Speakers from outside the state will be Dr. E. F. Phillips of Cornell University and Prof. R. H. Kelty of the Michigan College of Agriculture. Ohio men on the program will be E. R. Root, Dr. Ernest Kohn, O. E. Barber, C. A. Reese, W. E. Dunham, and Virgil N. Argo. A study of the brood diseases, better methods of beekeeping, and discussions of the marketing situation from various points of view will be the general program of the meetings.

Professor Argo, who assumed the duties of Extension Specialist in Apiculture on July 1, will give a demonstration of honey grading according to U. S. Government standards.

Mr. Charles N. Poling, president of the association, will be toastmaster at the annual banquet on Thursday evening, and a musical program will be given by Mr. Thomas Graham. All persons interested in beekeeping are cordially invited to attend.

Florence Naile, Secretary.

### Louisiana Meeting

The Louisiana State Beekeepers' Association met at Hotel Monteleone in New Orleans, November 14 and 15. About fifty beekeepers from Louisiana, Texas and Mississippi, including Mr. J. I. Hambleton and Mr. E. G. LeSturgeon, were present.

Mr. J. I. Hambleton, in charge of the Apicultural Research Laboratory, Washington, D. C., pointed out the need for a bee culture laboratory in the South. He stated that the standardization of apiary products such as honey, package bees and queens, the controlled mating of queen bees, and disease, as they affected the South, could only be worked out by research in the South, as conditions varied so much.

Mr. W. E. Anderson, State Entomologist, explained what had been done under the direction of his department to aid the beekeepers who had suffered in the Mississippi flood. He stated that much credit was due the various beekeeping journals for the wide publicity given, to the beekeepers and supply companies for their donations, and to the American Railway Express Company for free transportation of the supplies.

About six hundred and fifty colonies of bees, besides much additional equipment, such as smokers, veils, hives, frames, and foundation, have been collected at New Orleans under the direction of Mr. Anderson, with the help of Mr. Jes Dalton and Mr. E. K. Brunson. These are now being distributed to the beekeepers who

lost most heavily, according to the number of colonies registered with Mr. Anderson and the number lost.

Dr. L. C. Spencer, of New Orleans, was elected delegate to represent the Louisiana State Beekeepers' Association at San Francisco in January. Mr. O. W. Webb, Mr. E. C. Davis, Mr. W. E. Anderson, Mr. Jes Dalton, and Dr. L. C. Spencer were elected delegates to the Southern States Conference, Texarkana, Arkansas. Election of officers resulted as follows: Mr. Jes Dalton, president, Moreauville, La.; Mr. M. Stevenson, vice-president, Westwego, La.; Mr. Henry A. Stabe, L. S. U., Baton Rouge, La., secretary-treasurer.

Mr. Harry Laidlow demonstrated his method of hand insemination of queens. A total of six queens were mated. These were clipped, placed in queen cages, and given to beekeepers present, who agreed to report the results. It will not be possible to state definitely whether or not these queens were successfully mated until next year, when these queens will have a chance to lay. The results will be watched with interest.

Henry A. Stabe.

### Report of Illinois Beekeepers' Meeting

The annual meeting of the Illinois State Beekeepers' Association, which was held in Springfield, December 6 and 7, just past, was a very highly successful meeting, both in point of attendance and from the excellence of the program.

There were in attendance some seventy beekeepers, representing the larger honey producers of the state, and representing practically all sections of this state.

Addresses were made by beekeepers and educators outside of the state of Illinois, the following being those in attendance: Herbert J. Link, Laporte, Indiana; W. J. Nolan, Washington, D. C.; Russell H. Kelty, Lansing, Michigan; F. B. Paddock, Ames, Iowa; George S. Demuth, Medina, Ohio; C. D. Adams, Madison, Wisconsin; Mrs. Ida Cornforth, of the Kellogg Company, Battle Creek, Michigan.

The banquet held on the evening of December 6 was especially successful.

Senator Boyd, from Henry county, who has for years been active in championing the cause of Illinois beekeepers, gave an address, as did Director of Agriculture Stanard, who has charge of all bee inspection work in the state of Illinois, and who has as his chief deputy Mr. A. L. Kildow.

One of the features of the meeting was a meeting of Chief Inspector

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We produce and ship only the best of pure three-banded Italians. We give you more than full weight of healthy, young bees.

Two-pound packages with select 1928 laying queens, \$4.25 each; five or more, \$4.00 each.

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If packages are wanted without queens, deduct \$1.00 from the price of each.

Shipments will start early in April and will have inspection certificates and all papers necessary to deliver them at destination without delay.

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Tested queens, \$1.75 each

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We have been shipping bees and queens for many years and can give you the very best in bees, queens and service. Write us your needs for the new year.

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RENEW YOUR

Bee Journal

SUBSCRIPTION  
NOW

Kildow and his deputies, laying plans for 1928 season's work.

Chief Kildow reports the percentage of disease during the 1927 season as 3.4 per cent infection. This is a gradual decline from years past in face of the fact that new territories are being inspected and these new disease centers cleared up.

The bulk of territory which has been inspected a few years is now practically free of disease. All in all, the disease problem is rapidly approaching a highly favorable condition in the state of Illinois.

Members in attendance at the meeting unanimously reported an excellent crop of honey during 1927. The sales of honey were, in some cases, only mediocre, while in other cases beekeepers had disposed of practically their entire crop. Comb honey seems to be a greater drag on the market than does extracted. However, everyone seemed to be encouraged, and prospects look desirable for 1928.

Officers elected were as follows: Dr. A. C. Baxter, Springfield, president; E. A. Johnson, Peoria, vice-president; E. A. Meineke, Chicago, vice-president; Tom Benton, Johnson City, vice-president; Emory Warner, Monticello, vice-president; Elmer Kommer, Woodhull, treasurer; V. G. Milum, Urbana, secretary.

Mr. Milum is instructor in beekeeping at the University of Illinois, and should be in a position to correlate the activities of teaching, extension work and the office of secretary in a very desirable manner.

### Idaho Bee Men Meet

Members of the Idaho Beekeepers' Association opened a session here December 8 with twenty-five present. Frank Beach, of Burley, led a discussion on "Something I Want to Know." R. D. Bradshaw, of Wendell, head of the state association, presided, with C. H. Stinton, of Twin Falls, secretary.

The speakers during the session were: A. W. B. Kjosness, general manager of the Mountain States Beekeepers' Association; Carl Gordon, of the Continental Can Company; F. L. Swanson, of the A. I. Root Company of Council Bluffs, Iowa; F. J. Beck, of the Carl F. Buck Company, Walla Walla, Wash.; Guy C. Gordon, Denver representative of the Baltimore & Ohio Railroad, who discussed freight rates; J. Redfield, of Idaho Falls; J. H. Stoneman, of Blackfoot; John J. Paton, of New York City.

The first day's session closed with a banquet at the Hotel Bannock with about fifty men prominent in the honey industry present. Frank Beach cited statistics on the long and short haul of bees in gathering honey from the alfalfa fields. He showed the

close proximity of the fields to the hives produced a yearly average of a scale hive to be 200 pounds.

Glen Perrins.

### Central States Exposition

On November 28, 29 and 30, the Central States Horticultural Exposition held its second biennial meeting. Exhibits of apples, potatoes and honey were placed in the exhibition hall. There were eight entries in Department C—honey—from Missouri, Kansas and Iowa. The various divisions were comb honey, extracted honey, crystallized honey, bulk comb honey, beeswax, and a sealed extracting frame. In the first four there were two color classes—white and light amber.

The A. I. Root Company's sweepstakes cup, won in 1925 by Hammack Brothers, of Woodbine, Iowa, was won by J. L. Robinson, of Smithville, Mo., in 1927. Dr. Leonard Haseman, of the Department of Entomology, University of Missouri, Columbia, judged the exhibit.

The beekeepers' program at Farm and Home Week at the Kansas State Agricultural College is to be held Wednesday and Thursday, February 8 and 9, 1928. At the present time the program is being worked up with a number of local and nationally known speakers.

R. L. Parker,  
Supt., Dept. C, Central States Horticultural Exposition.

### New Jersey Convention

The annual convention of the New Jersey Beekeepers' Association will be held in the W. C. T. U. rooms, 214 East State street, Trenton, New Jersey, January 12-13, 1928. Philip Crane, son of J. E. Crane, the world-famed honey producer of Middlebury, Vermont, will be the main speaker on the program. Dr. J. H. Headlee, Elwood P. Budd, John Connor, and Harold Horner also have a part in the program.

An interesting feature of the meeting will be an exhibit of original devices and equipment, with prizes offered for the best. For information, write to E. G. Carr, Pennington, New Jersey.

### Beekeepers' Meeting

The Department of Zoology and Entomology of the North Carolina State College of Agriculture and Engineering at Raleigh, North Carolina, is planning to offer their annual beekeepers' short course on January 26-27, 1928. The North Carolina State Beekeepers' Association is to have its annual winter meeting in connection with the short course, and the executive committee of the association has called a business meeting on January 27.

A very interesting and instructive

program is being arranged for the short course and meeting. This program will be chuck full of things that will be of interest to every progressive beekeeper, professional or amateur, and the public is cordially invited to attend these meetings.

Mr. H. H. Root, general manager of the A. I. Root Company of Medina, Ohio, will be the chief speaker from without the state. Mr. Root is an experienced beekeeper and is well qualified to be an authority on beekeeping subjects. Dr. B. W. Wells, head of the Department of Botany at the college, will talk on nectar-secreting plants. Mr. C. L. Sams, Extension Beekeeping Specialist for North Carolina, who is one of the nationally known authorities on beekeeping practices in the South, will have an important place on the program. In addition to scheduled talks, a round table discussion will be held. The leaders of this discussion are to be some of the most progressive beekeepers in North Carolina. The following subjects of interest have been suggested for discussion: "Fall Management," "Wintering Bees in North Carolina," "Spring Management," "Swarm Control," "Enemies of Bees," "Preparing Apiary Products for Market," and "Carrying on During a Honey Failure."

F. B. Meacham, Sec'y.

#### Attention, Oklahoma Beekeepers

The first annual convention of the Oklahoma State Beekeepers' Association will be in session January 16 and 17, 1928, at the Chamber of Commerce, Oklahoma City. The members of the association have taken for their slogan, "Let our first meeting be our greatest," and judging from the fine program arranged and the unusual interest being shown, this will indeed be a great event. If you are a beekeeper, you are cordially invited and urged to attend this big two days' meeting. The program will be as follows:

"Radio Address," C. S. Rude, Stillwater.

"Honey Packing," L. D. Taylor, Chandler.

"Bee Inspection Work," H. H. Berry, Norman.

"Sweet Clover in Oklahoma," H. W. Horn, Jr., Oklahoma City.

"Queens and Requeening," Eugene Holloway, Marietta.

"Winter Stores," Mr. Hobson, Jones.

"The Benefits of an Association," W. C. Sawyer, Lindsay.

"Bees as Distributors of Pollen," Bee Wallace, Bethany.

"If I Started Beekeeping Over," A. B. Jones, Bethany.

In addition to the above, we are expecting some of the nationally known speakers to appear on the program, Mr. E. G. LeStourgeon,

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Untested.....	\$2.00	\$8.50	\$15.00	\$1.50	\$7.50	\$13.50	\$1.25	\$6.50	\$11.50
Select Untested.....	2.25	9.50	18.00	1.75	9.00	15.00	1.50	7.50	13.50
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Select Tested.....	3.50	19.50	35.00	3.00	16.50	30.00	2.75	15.00	21.00

Select tested, for breeding, \$7.50

The very best queen, tested for breeding, \$15.00

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Away back from 1902 I commenced rearing ITALIAN QUEENS with the object of improvement constantly in view.

By careful selection during all this time I have succeeded in producing a strain of light three-banded Italian, known as ST. ROMAIN'S HIGH QUALITY BEES, which has won a world-wide reputation for honey gathering and gentleness.

Now I am booking orders for the coming season of 1928, as follows:  
1—2-lb. pkg. with queen shipped on comb honey in for \$4.00 each. From 50 up, \$3.50  
1—2-lb. pkg. with queen shipped combless.....\$3.75 each. From 50 up, \$3.35  
1—3-lb. pkg. with queen shipped on comb honey in for \$5. From 50 up, \$4.50 each  
1—3-lb. pkg. with queen shipped combless.....\$4.75 each. From 50 up, \$4.50 each  
1—4-lb. pkg. with queen shipped on comb of honey in for \$6 each. From 50 up, \$5.50  
1—4-lb. pkg. with queen shipped combless.....\$5.50 each. From 50 up, \$5.25 each

Orders booked with 20 per cent down; balance 10 days before shipment.

All bees will be shipped in light and roomy cages, less express charges.

I guarantee safe arrival, a health certificate with each shipment, and I will add enough bees in each package for shrinkage in transit.

Address JOHN ST. ROMAIN, Marksville, La.

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#### "Chrysler's Process Foundation"

Government tests prove to be the "Best by Test Kind." Made of pure Beeswax. Perfect refining and milling. Thirty-five years' experience. Satisfaction guaranteed.

Other supplies manufactured. Best goods at lowest prices  
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### Pacific Citrus Honey Company

General Office 564 Market Street, San Francisco, Calif.,  
will again offer QUEENS AND PACKAGE BEES for shipment  
during SEASON 1928, from 2,000 colonies of the finest Italian  
three-banded bees and proven light breeders.

Queens, \$1.00; over ten, 85c

Packages, \$2.00; with queens, \$3.00

Packages, over ten, \$1.80; with queens, \$2.65

F. O. B. Woodlake, California

10% with order

Delivery begins March 10, 1928. Books open for orders now

editor of the Beekeepers' Item, of San Antonio, Texas, and others. Come and bring your friends. Eugene Holloway.

#### Ohio Beekeepers' Short Course and Annual Meeting

Special efforts have been made by the Ohio Beekeepers' Association, the full time Extension Specialist in Beekeeping, and the Instructor in Beekeeping to make the three days beekeepers' program, which starts February 1 and ends February 3, of unusual interest. The program covers a wide variety of problems in beekeeping. It is one which should offer much beneficial information both to the person contemplating keeping bees and to the commercial beekeeper. The meetings will be held at the Ohio State University, Columbus, at the Botany and Zoology Building, room 100.

#### Arkansas Bee Meetings

The dates of the Arkansas winter bee meetings have been so arranged that delegates to the League meeting at San Francisco can attend. The state meeting will be held at Little Rock on January 18 and 19. Following this meeting, there will be an interstate meeting and southern states conference at Texarkana on January 20 and 21. It is hoped that many of those who plan to go to San Francisco will stop off for one or both of the Arkansas meetings on the way.

#### Indiana Short Course

A short course in beekeeping will be held at Purdue University, LaFayette, Indiana, February 20 to 22. Among the speakers may be mentioned Prof. F. B. Paddock, Jay Smith and George S. Demuth. Programs may be obtained by writing to Dr. J. J. Davis at Purdue University.

#### Iowa Convention

The entire board of officers of the Iowa Beekeepers Association was re-elected at the recent convention at Ames. An additional director was elected, increasing the board of officers to seven. All the business of the association is now transacted by the board of officers, leaving no routine business to be brought to the floor of the convention except approval of committee reports and election of officers. This saves much time for papers and addresses on practical subjects and facilitates the transaction of association business. G. H. Ohmert, of Dubuque, is the newly elected director.

#### Iowa Short Course

The annual beekeepers' short course will be held at Ames in connection with the regular Farm and (Continued on page 42)

## Crop and Market Report

Compiled by M. G. Dadant

For our January number, we asked reporters to answer the following questions:

1. Proportion of 1927 crop sold.
2. Value of present sales.
3. Is there any chance of advancing jobbing prices after the holidays?
4. How much amber honey unsold?

The second question was misleading, and in fact was given out in a different manner than was expected by the writer.

The fourth question, relative to amber honey, was simply asked to see whether the recent demand on the part of candy manufacturers and bakers has had any effect on cleaning up the amber honey.

### PERCENTAGE OF CROP SOLD

It is very satisfactory to find that the California crop has practically all moved; in fact, there is not 5 per cent of the crop left, and intermountain honey is now coming into California at a very nice price.

Arizona and New Mexico report practically the entire crop sold. In the intermountain territory itself probably 60 to 75 per cent of the honey has already moved, and it is apparent that the balance will move without difficulty.

As we move eastward the percentages drop somewhat. In the plains area, however, comprising the states of Oklahoma, Nebraska, Kansas and the two Dakotas, it is likely that 60 per cent of the honey is out of the hands of producers, if not more. The heaviest producers—that is, shippers in carlots—have in most instances disposed of their honey at a price ranging from 7 to 7½ cents.

In Iowa probably 60 per cent of the honey has also moved, and Missouri has disposed of a large proportion of its crop. The same is true of Minnesota.

The Texas producers reporting to us state that 80 per cent of the crop has been sold, although the price has not been exactly satisfactory.

In the southeast section of the country perhaps a smaller proportion of the crop has been sold, but in all instances at least 50 per cent is disposed of, and the balance should move without difficulty.

It is in the Central West and eastern states that we find the most complaints of honey unsold. There are quite a large number of small producers who have quantities of comb honey on hand, who are having to keep it in a warm place to prevent granulation. The local markets are not disposing of comb honey as they should this year, and it is not surprising, because there are so many very small producers who have been breaking down the market with an inferior grade of comb honey at a very low price. This year the moderate sized producer seems to be in a quandary as to what to do with his comb honey. It may yet move, however, before March 1. Prices are offered from \$3.50 to \$4.00 per case for No. 1 comb honey, f. o. b. buyer's point. In most instances honey is being held for a price not less than \$4.00 f. o. b. shipping point.

The amber extracted honey situation is in a favorable condition, most of the amber honey having been disposed of. The white clover regions are still stocked with a good quantity of white extracted honey, but if a person can

move a part of his crop there should be no worry over it, because good, white honey is good property for the following season, owing to the usual question as to whether or not there will be a crop two years in succession.

It is our opinion that there will be a fairly good stock of white honey left in the central western states at the end of the year, not from underdemand, but from the fact that it is impossible to distribute this evenly. In other words, many of the producers have already sold out, while others are confronted with a heavy crop and no outlet for sales. If these two parties could be gotten together and an effort made on the part of both to cooperate, undoubtedly the whole crop in the central western states could be distributed without any difficulty.

### WILL JOBBING PRICES ADVANCE?

In most instances the opinion of reporters was that there was no possibility of jobbing prices advancing. However, most of those reporting in this manner were from the eastern and central western states, where the crop is still large and where a price of 10 cents is difficult to obtain in jobbing lots.

However, looking at it from the point of the shipper in intermountain and California sections, we see no reason why jobbing prices should not maintain themselves where they are now, if not advance. The reason we look for a possible advance is the fact that there is a large foreign demand for honey which must be supplied from those sections which can ship in carload lots. In other words, the small producer of the Central West is not in a position to ship to New York or to foreign ports. The cost of local freight in assembling this honey is too much to warrant accepting a price which would be remunerative, compared with the western sections where a carlot can be turned out at a single shipping point.

All in all, we do not believe there should be any pessimism over the conditions of the honey market this year. The market started out at moderate figure and shows no indication of a bad slump, except, of course, on the part of numerous price cutters, who, as always, are especially active during the period of heavy crop.

The advent of cold weather came especially late this year, but it has come at last with a definite "bang," and the honey market should profit by it.

Automobile factories have entered into heavy production, other merchandise is selling better as a result of the cold weather, we are also advised that farm conditions as a general thing are considerably improved over a year ago. All of these points totaled should put the honey producer in a little more fortunate condition and should lead us to believe that the slump in honey prices which our industry underwent last year in late winter should not be repeated this year.

Let us not lose sight of the fact that our own Division of Bee Culture at Washington and Department of Commerce have been instrumental in opening a very desirable outlet for American honey in European countries. Undoubtedly, if this can be depended upon, the shipment of honey to these foreign ports will have a lot to do in relieving congestion in the larger market centers of the United States.

## CLASSIFIED DEPARTMENT

Advertisements in this department will be inserted for 5 cents per word, with no discounts. No classified advertisements accepted for less than 35 cents. Count each initial or number as one word.

Copy for this department must reach us not later than the 15th of each month preceding date of issue. If intended for classified department it should be so stated when advertisement is sent.

As a measure of protection to our readers, we require references of all new advertisers. To save time, please send the name of your bank and other references with your copy.

Advertisements of used beekeeping equipment or of bees on combs must be accompanied by a guarantee that the material is free from disease or be accompanied either by a certificate of inspection from an authorized inspector or agreement made to furnish such certificate at the time of sale.

## BEES AND QUEENS

**BOOKING** package bees for May delivery. Four pounds with untested queen, \$5.00; five pounds, \$6.00. Only a limited number to offer. Student's Bee and Honey Co., Berkeley, Calif.

**COMBLESS** package bees for 1928. Golden and bright three-banded Italians. Two-pound package with young untested queen, \$3.50; three-pound package, \$4.50; four-pound package, \$5.50. Prompt service and satisfaction guaranteed. Price list free. Twenty per cent books your order. The Peerless Apriaries, Box 54, Marksville, La. Rev. J. P. Cooney, Prop.

**PACKAGE** bees and queens. Untested daughters of Honey Girl breeder. Charles Wallace, Box 44, Rt. 1, Glenn, Calif.

**SPECIAL PRICES** to new customers on our best honey gathering strain of Italian bees. Write for circular or see display ad elsewhere in this Journal.

Blue Bonnet Apriaries, Mercedes, Texas.

**POUND** package bees with 1928 Italian queens. Two-pound packages, \$3.50; three-pound packages, \$4.50. Satisfaction guaranteed.

Overbay Apriaries, Leonville, La.

**LEATHER-COLORED** three-banded Italians for early spring shipments. Delay means disappointment, so book orders now and get a hearing from us assuring you of the shipment to suit your convenience. One to ten two-pound packages, \$2.75. Additional pound to package, \$1.00. Select untested queens, \$1.50; with package, \$1.25. Discounts on big orders. Twenty per cent down on small orders. Safe arrival and satisfaction guaranteed. Moncla Bros. Apriaries, Moncla, La.

**PACKAGE BEES**—For 1928. Special price to first fifty who order five or more packages. The Crowville Apriaries, J. J. Scott, Prop., Crowville, La.

**GASPARD'S** high golden and three-banded Italian queens and bees are now ready to book for spring 1928. One two-pound package with select young queen, \$4.00; ten or more, \$3.50 each. Each additional pound, \$1.00. Shipped on frame of brood and honey, largely built on Dadant's wired foundation, Hoffman frame. Also ship combless packages at 25 cents less. Satisfaction guaranteed. Health certificate attached. Twenty per cent books your order. Shipping time starts April 1 to 5.

J. L. Gaspard, Hessmer, La.  
Member La. State Beekeepers' Assn.

**FOR SALE**—100 colonies of bees in two-division, eight-frame hives, with supers of drawn comb. Also complete outfit, including power extracting equipment, tanks, large automobile trailer, etc. Apiary is situated on the banks of the Red River of the North, at Breckenridge, Minnesota. Unlimited field for expansion. Two hundred pounds of sweet clover honey is the average per colony. The price is \$2,000.00 Correspondence solicited. Dr. L. D. Leonard, 3853 Bryant Ave. S., Minneapolis, Minn.

**PACKAGE BEES**—See our ad on page 43 or write for particulars. Louisiana Southern Bee Farm, Baton Rouge, La.

**WANTED**—Beeswax and honey in exchange for bees and queens. Write for prices. Blue Bonnet Apriaries, Mercedes, Texas.

**LOUISIANA** strain Italian bees and queens, the real honey gatherers, shipped on syrup or on sugar candy. No disease; health certificate attached. Prices f. o. b.: Three two-pound packages bees with queens, one crate, \$11.25; six two-pound pkgs. bees with queens, two crates, \$21.50; nine two-pound pkgs. bees with queens, three crates, \$30.75; twelve two-pound pkgs. bees with queens, four crates, \$39. For 3- and 4-lb. packages write for special price for those who desire to build up quick for early honey crop. A limit of three-frame nucleus: Three-frame nuclei with queens and plenty bees, one, \$5.50; three-frame nuclei with queens and plenty bees, two and up, \$5.00 each. Best to book order early and not be disappointed. Mention date shipment desired, with 20 per cent advance as deposit of good faith. If lost in transit, replace or money refund. References: People's Saving Bank and Trust Co., and member of Louisiana Beekeepers' Ass'n. Victor Prevot, Mansura, La.

I WANT to furnish your bees and queens the coming season. No order too large for our facilities. None too small for our careful consideration. A card will bring price list. R. V. Stearns, Brady, Texas.

**PACKAGE BEES**—The same good quality and service with a money back guarantee. All packages are one-quarter pound overweight. A young, untested, pure Italian queen with each package. Never had any disease; all bees are inspected by state inspector and a health certificate accompanies each shipment. Write for price list.

John A. Williams, Box 178, Oakdale, La.

WHY take chances? Indications are that the supply of package bees will be very short this spring, so act at once by placing your order with a shipper who has a reputation for the best quality and prompt shipment. Do not take chances of costly delays and disappointment. Safe arrival and satisfaction guaranteed. Health certificate with each shipment. Write for circular and price list, also prices on quantities. J. M. Cutts & Sons, R. F. D. 1, Montgomery, Ala.

**GOLDEN** Italian queens and nuclei (or package bees) for 1928. The big, bright, hustling kind (the kind that get the honey). Satisfied customers everywhere. Untested, \$1.00 each; 6 for \$5.00; 12, \$10.00; 100, \$75.00. Tested, \$2.00 each. Two-frame nuclei or two-pound package with queens, \$4.50 each; ten or more, \$4.00 each. Safe arrival guaranteed. Health certificate furnished. E. F. Day, Honorableville, Ala.

**PACKAGE** bees and queens. If you want bees and queens, place your order early. We are now booking orders for 1928. Get our prices before buying. We guarantee safe delivery and satisfaction. Health certificate and all necessary papers with each shipment. The Mangham Apriaries Company, C. S. Duncan, Prop., Mangham, Louisiana.

**EARLY** package bees and select young laying Italian queens. The kind that will pay you a profit the first season. Attractive prices on orders placed in advance. Our northern location will save you both time and express charges. Let us quote you on any size order, either f. o. b. here or delivered to your station. We guarantee safe arrival and delivery on time. Circular free. J. E. Wing, Cottonwood, California.

**BARGAINS** on package and nuclei bees from one package to several thousand. Very cheap prices. Write us your wants before placing your order elsewhere. We believe we can save you money. First-class references from customers all over the United States, Canada, and even Cuba. We would like to hear from several large beekeepers. Have a good offer.

The Louisiana Modern Apriaries,  
M. J. Voinche, Prop., Bunkie, La.

**FOR SALE**—100 colonies of bees, together with equipment for 200 more. Unexcelled location for 1,000 colonies. Standard ten-frame. Sell all or part.

B. F. Kindig, East Lansing, Mich.

**SPECIAL** discount on early orders for package bees for 1928. A postal card will bring new price list.

N. L. Stapleton, Colquitt, Georgia.

IT will pay you to see my display on page 5. Jes Dalton.

**FOR PROMPT SERVICE**—Full weight, safe delivery and satisfaction at reasonable prices, book your order for Italian bees and queens with P. M. Williams, Mt. Willing, Ala.

**THRIFTY CAUCASIANS**—Booking orders for three-frame nuclei, also queens for May delivery. Yard inspected regularly for protection of diseases.

Peter Schaffhauser, Havelock, N. C.

**AMERICAN BEAUTY** Italian bees and queens. Tupelo Apriaries, J. L. Morgan, Prop., Apalachicola, Fla.

BEFORE placing your 1928 order for bees and queens, get our booklet giving prices, also explaining why bees ship better and give better results from this location than from many other locations.

The Citronelle Apriaries, Citronelle, Ala.

**CAUCASIAN QUEENS** from imported stock. Select untested \$1.50 each for balance of season. Now booking orders for 1928 delivery.

Tillery Bros., Greenville, Ala., Rt. 6.

TESTED good quality three-band queens \$1.00 each during fall and winter months. I sell queens every month of the year.

D. W. Howell, Shellman, Ga.

"SHE-SUITS-ME" QUEENS—Three-banded stock. None better. Untested queens from May 15 to June 15, \$2.00; after June 15, \$1.50. Introduction guaranteed.

Allen Latham, Norwichtown, Conn.

HIGHEST grade Italian queens—Tested, \$1.50; untested, 75 cents. Package bees, one pound, \$1.50; two pounds, \$2.50; three pounds, \$3.25. Have had no disease. State inspection certificate with each shipment. Safe delivery guaranteed.

T. L. Davis, Buffalo, Leon Co., Texas.

TRY our high class queens and get the honey. We sell only the best selected Italians, guarantee safe arrival and complete satisfaction in every way. Our queens are personally reared and we want you to try them. Prices are \$1.00 each; 6 for \$5.50; 25 at 80c each, and 50 or more 75c each.

Salida Apriaries,  
T. L. Nicolayson, Prop.,  
Salida, Calif.

GOLDEN THREE-BANDED and Carniolan queens. Tested, \$1.00; untested, 75c each. Bees in 1-pound package, \$1.50; 2 pounds, \$2.50; 3 pounds, \$3.25. Safe delivery guaranteed.

C. B. Bankston, Box 65, Buffalo, Leon Co., Texas.

LEATHER COLORED ITALIAN QUEENS—\$2.00; after June 1, \$1.00. Tested, \$2.00.

A. W. Yates,  
15 Chapman St., Hartford, Conn.

## FOR SALE

BEEKEEPERS' handy three in one combination feeder. For use on the hive every month in the year. Send for description and prices. W. F. Tilton, 3412 Bales, Kansas City, Mo.

GROWERS' choice table rices, \$4.50 per 100 pounds. Samples on request.

John P. Hoyt, Esterwood, La.

FOR SALE—One 17x8 1/4-inch Giffen foundation press in good condition. About 400 24-pound, two-tier shipping cases in the flat, without glass (Lewis goods) at 17c each; 200 12-pound shipping cases at 13c each.

L. & J. Leibrock, Mascoutah, Ill.

REGAL LILY—Blooming size bulbs, \$1.00 per three, \$3.00 per twelve. Description and seed culture mailed to you for the asking.

F. Danley, Macomb, Ill.

FOR SALE—We are constantly accumulating bee supplies, slightly shopworn, odd sized, surpluses, etc., which we desire to dispose of and on which we can quote you bargain prices. Write for complete list of our bargain material. We can save you money on items you may desire from it.

Dadant & Sons, Hamilton, Illinois.

**HONEY AND BEESWAX**

**HONEY WANTED**—Comb and extracted. Any quantity. What have you? Also ask for price list in bee supplies. Will take honey in exchange for bee supplies. Blossom Cream Apiaries, Frankenmuth, Mich.

**STUR-DE-VANT**, St. Paul, Neb., Extracted or Comb Honey

WINKLER'S choice white clover honey in new 60-lb. cans at 10c lb., or five cases at 9½c lb. Sample prepaid 20c. Winkler Honey Co., Joliet, Ill.

**WHITE CLOVER** in 60-lb. cans, two to case, 9c per pound. Also light amber, 7½c. Sample 15c. Sylvester Legat, Spring Valley, Ill.

**EXTRACTED** honey in 5- and 10-lb. pails and 60-lb. cans. Let me quote prices on your needs. A. L. Kildow, Putnam, Ill.

**OHMERT'S HONEY**—None finer; 9c, new 60's. Sample. Also comb and chunk honey. Ohmert & Son, Dubuque, Iowa.

**FOR SALE**—Best extracted clover honey in new 60's, 8½c in ton lots. Satisfaction guaranteed. Harry C. Kirk, Armstrong, Iowa.

**FOR SALE**—2,000 pounds clover in 60's, and 4,000 pounds in 5-lb. pails. William G. Blake, Port Huron, Mich.

**BEAUTIFUL** and delicious mangrove honey in 5-lb. pails, by parcel post. Quantities in pails and barrels. Sample 5c. P. W. Sowinski, Fort Pierce, Fla. (Formerly at Bellaire, Mich.)

**HONEY** in 60-lb. cans. White clover 10c, buckwheat 7c. F. J. Smith, Castalia, Ohio.

**MICHIGAN'S** best extracted honey; clover, raspberry, milkweed. In 60-lb. cans and other packages, quantities to suit, at prices within the market. A. G. Woodman, Grand Rapids, Mich.

**EXTRACTED** and comb wanted. Advise us what can ship and price wanted, sending samples of extracted. Comb must be 4½ square by 1½ beewy sections. Prefer glass front cases. State how comb packed and grading, etc. Arthur H. Hoffman, Co., Richmond Hill, N. Y.

**FOR SALE**—White clover honey in sixty-pound cans. Strictly No. 1 grade. A. G. Kuersten, Burlington, Iowa.

**COTTON HONEY**—Five-pound pail, post-paid, \$1.50. E. T. Edwards, Grandview, Texas.

**FOR SALE**—White clover comb honey in standard 4½x4½x1½ sections. Prices on request. C. Holm, Genoa, Illinois.

**WHITE CLOVER HONEY**—Extracted, comb and chunk honey. Prices on request. Sample 15c. F. W. Summerfield, Waterville, O.

**FOR SALE**—A-1 white clover honey in five-pound pails or sixty-pound cans at attractive prices. Also some fine quality light amber. Ross B. Scott, LaGrange, Indiana.

**EXCEPTIONAL** quality clover honey. Clear, white, thick, mild and delicious. Fast retail seller. Inquire price. Newman I. Lyle, Sheldon, Iowa.

**FOR SALE**—White clover honey in 60-lb. cans. Sample 15c. Alfred Stutt, Creston, Iowa, R. 5.

**FOR SALE**—Finest quality white clover honey in new 60-pound cans. Martin Carsmoe, Ruthven, Iowa.

**FOR SALE**—7,000 pounds clover and 7,000 pounds fall honey, mixed flowers, new sixty-pound cans, two to the case. Sample free. W. S. Earls & Son, New Canton, Ill.

**CHOICE** clover honey in 60-pound cans; also comb honey in carriers of six or nine cases. Arthur Beals, Otoe, Iowa.

**FOR SALE**—Northern white, extracted and comb honey. M. W. Cousineau, Moorhead, Minn.

**WANTED**—Comb honey. Name your best price, delivered. V. V. Facey Honey Co., Preston, Minn.

**FOR SALE**—Extracted honey in 5- and 10-lb. pails. Priced right. Write for prices. Fred H. May, Meredosin, Ill.

**FOR SALE**—Fancy western Ohio white clover honey in new sixty-pound cans, 10 cents per pound. Twelve five-pound pails, \$7.75. Discount on large lots. Sample 15c. Joseph H. Hoehn, Ottoville, Ohio.

**CLOVER** and basswood honey, blended by the bees. Color white; body fine. Extracted and comb honey. Sample 15c. W. A. Jenkins, Rockport, Mo.

**CERTIFIED HONEY**—Light color, excellent flavor and heavy body. Carload or case shipment. Write for prices and state quantity wanted. W. R. Perry Co., 1209 Howard St., Omaha, Neb.

**FANCY** white tupelo extracted and bulk comb, packed in five-pound tin. J. L. Morgan, Tupelo Apiaries, Apalachicola, Fla.

**FOR SALE**—Finest quality clover honey. Lewis Klaty, Carsonville, Mich.

**FOR SALE**—White clover honey in 60-lb. cans. None finer. Satisfaction guaranteed. J. F. Moore, Tiffin, Ohio.

**FOR SALE**—Our own crop white clover and amber fall honey in barrels and cans. State quantity wanted and we will quote prices. Samples on request. Dadant & Sons, Hamilton, Illinois.

**FOR SALE**—Large stock first-class white clover, sweet clover, basswood, light amber and buckwheat extracted honey. Producers who need more, dealers and solicitors should write us about their wants. A. I. Root Co. of Chicago, 224 W. Huron St., Chicago, Ill.

**EXTRACTED HONEY**—Extra fancy, white clover; 60 lb., 13c pound; six 10-lb. pails, \$9.00; twelve 5-lb. pails, \$9.60. Kalona Honey Co., Kalona, Iowa.

**WANTED**—A car or less quantity of white honey in sixty-pound cans. Mail sample and quote lowest cash price for same; also send for my cut price circular on cans and pails for honey containers. J. S. Bulkley, Birmingham, Mich.

**FOR SALE**—No. 1 white comb, \$4.50 per case, 24 sections to case, six cases to carrier. Clover extracted, 10c pound; dark, 7c. Two 60-lb cans to case. H. G. Quirin, Bellevue, Ohio.

**FOR SALE**—Fine quality clover honey in new 60-lb. cans. Sundberg Bros., Fergus Falls, Minn.

**FOR SALE**—Bee-Dell extracted honey in new 60-lb. cans. We solicit your business. Bee-Dell Apiaries, Earlville, N. Y.

**FOR SALE**—White sweet clover extracted honey and fancy white comb in shallow frames. Quality goods that will please your trade. Write for prices. The Colorado Honey Producers' Ass'n, Denver, Colo.

**HONEY FOR SALE**—In 60-lb. tins. White clover at 12c lb.; white sage at 12c lb.; white orange at 18c lb.; extra L. A. sage at 11c lb. Hoffman & Hauck, Inc., Ozone Park, New York.

**FOR SALE**—Choice clover extracted honey packed in new 60-pound cans and cases. J. D. Beals, Dwight, N. Dak.

**HONEY FOR SALE**—Any kind, any quantity. The John G. Paton Co., 217 Broadway, New York.

**SHALLOW** frame white comb honey and white extracted honey. The Colorado Honey Prod. Ass'n, Denver, Colo.

**SUPPLIES**

**STANDARD** hives, supers and frames. Priced to sell. Send for free price list today. Schmidt Bee Supply Co., 1420-1422 Hager Ave., St. Paul, Minn.

**COMPLETE** hives, hive bodies, bottom boards, covers, frames, all kinds. All new and made of the best material. Dirt cheap. Send list of what you need. The Stover Apiaries, Tibbee Station, Miss.

**FOR SALE**—Foundation, books, bee brushes, comb, hives, cartons, feeders, nailed and painted bodies, bottoms, covers and bodies, veils, sections, a big assortment of frames, excluders, comb and extracting supers k. d., and many other items in good usable condition. Reason for selling, items no longer listed in our catalog. Prices the lowest anywhere for the value. Write direct to G. B. Lewis Company, Watertown, Wis.

**ROBINSON'S** comb foundation will please the bees, and the price will please the beekeeper. Wax worked at lowest rates. E. S. Robinson, Mayville, N. Y.

**WANTED**—Used lock-cornered, ten-frame hive bodies. Must be cheap, best of condition, and high quality workmanship; also ten-frame Root wire excluders. The Hoffman Apiaries, Janesville, Minn.

**"BEEWARE"** and Dadant's Wired Foundation for the Northwest. Catalog prices. F. O. B. Fromberg, Montana. Beeswax wanted. Write for prices. B. F. Smith, Jr., Fromberg, Mont.

**BEST QUALITY** bee supplies, attractive prices, prompt shipment. Illustrated catalog on request. We buy beeswax at all times and remit promptly. The Colorado Honey Producers' Ass'n, Denver, Colo.

**FOR SALE**—Good second-hand 60-lb cans, two cans to a case, boxed. We have large stocks of these on hand. Please write for prices if interested. We are offering only good cans and good cases. C. H. W. Weber & Co., Cincinnati, O.

**MISCELLANEOUS**

**BLOSSOM CREAM NUT BUTTER**—A delicious spread for bread. Made with honey and peanuts. Send 20c for 10-ounce tub. Blossom Cream Apiaries, Frankenmuth, Mich.

**YOUR FAVORITE** pictures, kodak or portrait, colored or enlarged and made beautiful oil paintings. Send prints or negatives. Prices very reasonable. William Robinson, Morton Grove, Ill.

**MAKE** queen introduction sure. One Safin cage by mail, 25c; 5 for \$1.00. Allen Latham, Norwichtown, Conn.

**THE BIGGEST** bargain ever offered. The American Bee Journal, oldest, largest and best known bee magazine published, clubbed with the young, vigorous, independent giant of modern beekeeping, both together for one year for \$1.50. Send orders to the Beekeepers' Item, Box 838, San Antonio, Texas. Sample copy free.

**HAVE YOU** any Bee Journals or bee books published previous to 1900 you wish to dispose of? If so send us a list. American Bee Journal, Hamilton, Ill.

**THE DADANT SYSTEM IN ITALIAN**—The "Dadant System of Beekeeping" is now published in Italian, "Il Sistema d'Aricoltura Dadant." Send orders to the American Bee Journal. Price \$1.00.

**GLEANINGS IN BEE CULTURE**, published at Medina, Ohio, is the most carefully edited bee journal in the world. Its editor-in-chief is George S. Demuth. Its field editor is E. R. Root. Ask for sample copy.

**WESTERN HONEY BEE**, 2823 E. 4th St., Los Angeles, Calif., published by Western beekeepers, where commercial honey production is farther advanced than in any other section of the world. \$1.00 per year. Send for sample copy.

**WANTED**

**HELP WANTED**—Experienced and inexperienced, in our extensive queen-rearing and packing bee industry. State age, ability and wages expected in first letter. Jensen's Apiaries, Crawford, Miss.

**EXPERIENCED**, able-bodied man for extracted honey, 1928. State age, experience and wages expected.  
B. F. Smith, Jr., Fromberg, Mont.

**WANTED**—Position with large producer, preferably in Wisconsin, Minnesota, Iowa or the Dakotas, by single man 27 years old. Has had eight years' experience and course in beekeeping at Purdue University. Was brought up on farm and is not afraid of work. Will give references.  
O. R. Winchester, Greenwood, Ind.

**WANTED**—Position, by experienced young man, with large producer or queen breeder. References furnished.  
Leonard Robins, Mt. Sterling, Ill.

**WANTED**—Position with U. S. bee farm. Will work for wages or shares in honey production or queen-rearing. Ten years' experience. Want house and financials furnished for five; two boys and one girl. Strictly reverent, no bad habits.  
H. G. Karns, Victoria, Va.

**HELP WANTED**—Young men interested in learning bee business to help operate 400 colonies of bees. J. G. Jessup, A. I. Root Company of Iowa, Council Bluffs, Iowa.

**EXPERIENCED** commercial beekeeper wishes large outfit on shares or to manage in Southern Idaho or Montana. A. Wendte, 2516 Third Ave., Seattle, Wash.

**WANTED**—Good bee man for following season. State experience, wages wanted, etc. Address RHL, American Bee Journal.

**WANTED**—Shipments of old comb and cappings for rendering. We pay the highest cash and trade prices, charging but 5¢ a pound for wax rendering.  
Fred W. Muth Co.,  
204 Walnut St., Cincinnati, Ohio.

#### RABBITS

**RABBITS**—Make big profits with Chinchilla rabbits. Real money makers. Write for facts. 824 Conrad's Ranch, Denver, Colo.



#### SAVE TIME — SAVE WORRY

DADANT'S WIRED FOUNDATION



Can be nailed into Lewis Slotted Bottombar Frames in a jiffy.  
And such wonderful combs!

Sold by all dealers in Lewis Beeware and Dadant's Foundation

#### SHASTA COUNTY, CALIFORNIA

One of the best places from which to procure package bees, in the world, because we can produce the best, at the best time.

Our State law is your guarantee

Let me quote you prices on packages and queens  
Order early and insure shipment when desired

J. W. DI LULLO

ANDERSON, CALIFORNIA



#### "Our Backdoor Neighbors"

By FRANK C. PELLETT

Stories that cannot be forgotten about the animal friends that live so close to us. There is nothing cut and dried about "Our Backdoor Neighbors." It is a book so thoroughly enjoyable that it can be read repeatedly without tiring. Children love it, and the old folks love to read it to them.

210 Pages—85 Pictures from Life—Cloth Bound—Price \$1.50

AMERICAN BEE JOURNAL, Hamilton, Illinois

lecturer for local meetings where beekeepers wish to arrange for them.

The staff for these special courses consists of R. M. Pugh, Provincial Apiarist, Dr. C. F. Patterson of the University, Mr. L. T. Floyd, Provincial Apiarist of Manitoba, and C. D. Gooderham, Dominion Apiarist, of Ottawa.

#### A Pamphlet on Bee Diseases

The Bee Culture Division of the Bureau of Entomology recommends for distribution to beekeepers the pamphlet on "The Occurrence of Diseases of Adult Bees." This publication devotes particular attention to the Isle of Wight disease, believed to be caused by the parasitic mite **Acarapis woodi**, and to the disease caused by the protozoan **Nosema apis**. It includes comment on arsenical poisoning of bees that results from the use of arsenical sprays in the control of fruit pests. This circular also includes a fairly complete bibliography on diseases of adult bees. It is not a bulletin on beekeeping practices. It was issued several years ago, and is still available for distribution. The department does not expect to reissue this circular when the present supply is exhausted. It will be sent free on application for Department Circular No. 218-C, directed to the Office of Information, Department of Agriculture, Washington, D. C.

#### Meetings and Events

(Continued from page 38)

Home Week. Our short course will cover four days, January 31-February 3. Among the out-of-state speakers will be E. L. Sechrist, of the Bee Culture Laboratory, who will present topics on marketing. Special emphasis will be placed this year upon the preparation of honey for market.

It is expected that the program which will be offered to the beekeepers will be better than any which has been presented before.

F. B. Paddock.

#### Kansas Short Course

Some nationally known speakers have been obtained for the two-day beekeepers' short course program for Farm and Home Week: Mr. E. L. Sechrist, of the United States Bee Culture Laboratory, Washington, D. C.; Prof. F. B. Paddock, State Apiarist, Ames, Iowa, and Mr. G. H. Cale, of the American Bee Journal. Several local speakers will be on the program, as well as a few noted beekeepers of the state of Kansas. The two principal subjects to be dealt with are production and marketing for commercial beekeepers.

R. L. Parker,  
State Apiarist.

## Yellow Bees

By C. A. Bird

I often read in American Bee Journal about your objection to the grey races of bees as "being hard to tell mated queens." I admit it is rather difficult to tell them when mated to a common (?) (or uncommon) black, but I don't think any more so than telling a mated yellow (Italian) queen.

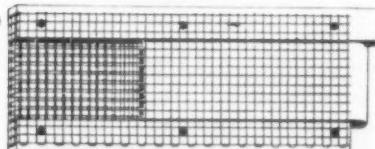
It is a known fact that yellow is dominant to black in the honeybee. A pure grey queen mated to a drone carrying any yellow factors at all will show in the first mating part yellow workers, and a pure grey queen mated to a pure yellow drone will give all yellow workers. Now a pure yellow queen mated to a black drone would show no black in her workers, but we can only tell that she is really a mated queen by rearing young queens from her and mating them to black drones. When this is done, if the old queen mother is herself purely mated, the workers of the daughters, though mated to a black drone, will all be yellow three-banded bees, but if she is really a hybrid or a daughter of a mated queen, being mated to a black drone, as I said before, half her workers will carry the black factor only and the other half will be hybrids like the mother, since they carry both the factor for black or yellow.

Therefore, a yellow queen mated to a black drone, and daughters raised from her mated to yellow drones, will give all yellow worker bees, but they (the daughters) will give both yellow and black drones all the way. The mother queen could be told to be mated.

The lack of this knowledge of how the color factor behaves in heredity in the honeybee is very confusing and a source of complaint against the producers of Italian queens. A tested queen is no better than an untested one if the mother was pure, as far as color is concerned. Grey queens can be told to some extent by the color, but more by the behavior and temperament.

(Yellow is dominant in the Italians, but mainly because they have been in-bred for color. It is far from being as dominant in the bees from imported queens as in the bees that have been bred for color in America. For that reason, many American beekeepers imagine that the Italian bees of Italy are not pure, since a mixture shows at once in the progeny, while the long in-breeding of Italians, for color, causes the yellow to be dominant, as you say.—Editor.)

## INTRODUCING CAGE



**15c each. 12 \$1.00**

## Diemer's Three Banded Bright Italian Queens

Before June 15, Select Untested, any number, \$1.20 each. Tested, \$2.00

After June 15, Select Untested:

4 or less, \$1.00 each
5 to 10, 90c each
11 to 20, 85c each
21 to 50, 80c each
51 to 100 or more, 75c each

Queens sent in introducing cages. Write for circular giving principle of queen introduction and prices of package bees. Prompt service and a square deal.

**J. F. DIEMER, Liberty, Mo.**

**DECIDE ON  
RED STICK  
QUEENS AND BEES.  
DEPOSIT NOTHING.**

Let us have your order now.  
Three yards of tested RED STICK Queens for early Spring delivery, bred during our Fall flow.  
Our colonies are wintering in excellent condition and our shipping season, April 1, will find them boiling over.  
Get our low prices and guarantee by return mail.  
**WE ARE NOT IN FLOOD AREA  
RED STICK APIARIES  
Baton Rouge, La.**

## BRIGHT ITALIAN BEES and QUEENS

I do everything possible to have my packages give satisfaction. Every package has one of my carefully raised young queens. I supervise all shipments.

I've never had a dissatisfied customer, but satisfied ones from 32 states have praised gentleness, prolificness, honey production, and promptness in filling orders. Write for prices. They're reasonable.

**M. STEVENSON, Westwego, La.**

## Three Banded Italian Bees and Queens for 1928

Two-pound packages with untested queens, \$3.75

Will book your order without deposit. State certificate with each shipment. I guarantee satisfaction or money refunded.

**RAOUL DOMINGUE**  
Erwinville, La.

## PETTIT'S PACKAGE BEES

### SATISFY

YOU CAN DEPEND  
ON THEM WHEN WANTED  
ORDER NOW for APRIL and MAY  
PRODUCED AND PACKED  
IN GEORGIA PERSONALLY

**By MORLEY PETTIT**

Georgetown, Ontario

Will Always Find Me

## ITALIAN BEES AND QUEENS

Let us book your order for 1928

2-pound package, \$3.50  
3-pound package, 4.25

F. O. B. Baton Rouge

## LOUISIANA SOUTHERN BEE FARM

Route 2

Baton Rouge, La.

George L. Lott J. W. Newton



Every ounce of this  
re-processed Water

## FORMALIN SOLUTION

measures up to a  
given standard of  
strength and purity

For sterilizing combs infected with  
AMERICAN FOULBROOD it is the  
Cheapest Dependable Disinfectant.

THE DIAMOND MATCH CO.,  
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Can be nailed into Lewis Slotted Bottom Bar in a jiffy. And such wonderful combs!

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## Oddities

By L. Diemer

If not through his own observation, I then through reading in bee journals and bee books, every beekeeper probably knows that bees will behave differently in different climates and localities; also that some colonies act differently from others under the same conditions. Following I will relate some instances of unusual behavior that, I hope, will be interesting or entertaining. As there has been mention of propolis lately, let me begin with that:

Dry, white combs, if left about, will be investigated by the bees, but nothing will be carried away. If, however, such a comb is squeezed into a solid ball and left on the top of a hive, then bees will carry it off little by little, using it for propolis. Last spring my bees caused me considerable annoyance and some damage by carrying away the grafting wax from grafted trees. They always started working directly around the grafts, causing them to dry up. Several times I had to reapply the wax to a large number of big grafts, and the bees just as promptly carried it away. Finally I used asphaltum instead. This stopped most of the bees, for asphaltum is tough, but a few kept working during spring, summer and fall, not enough to be noticeable, though.

This summer there was a total dearth of nectar for two months and the bees used up all their stores, making feeding imperative. I found that where sugar had not been quite dissolved some colonies did not know how to use the granules that were left in the pan feeders. Yet the sugar bags, which were left out in the open, because it never rains in the Sacramento Valley during summer, were in a few days covered with bees, all on the shady side. They did not carry anything away in their pollen baskets. But a dozen or more in clumps would have their heads close together on the sack before leaving with filled honey sacs. No doubt they dissolved the sugar.

It seemed as though almost all these bees were from the same hive and unusually clever for bees. Close to the apiary are prune orchards and a prune dry yard, and while prunes are very high in sugar content, the bees never work on the fruit; the skin is too tough.

In any apiary dead bees can be found almost anywhere on the ground, but hardly ever a dead bee will be on a hive cover. So when one summer at high noon I went into an outyard and on one hive cover I found a dozen bees lying dead on their backs, I "stopped, looked, and

listened." Looking at the other hive covers I saw that every one of them was bare of bees. The explanation proved peculiar and may seem incredible to some. The hive at noon was fully in the sun, while all around was the shade of trees. Some bees flying through the shade were blinded by the dazzling whiteness of the hive. In a few minutes I saw several dozen bees fly head-on against the flat hive cover. Every one of them fell on its back, and all that could not right themselves immediately and fly off were scorched to death as quickly as you can count one, two, three.

Some time ago there appeared in the Journal a translation of an ancient Chinese writing on beekeeping. I thought it very interesting, and sensible, too, till towards the end the ancient gentleman with the pigtail advised that when bees are short of stores for winter a plucked chicken put in the hive will give them food to bring them through safely. The editor commented rather hastily on that, though at the time I fully agreed with him. Since then, however, I have changed my mind. Bees do eat meat. Everyone knows that bees will, when starving, eat their brood, which is meat of a sort. They will also occasionally eat some brood when there is no lack of honey in the hive. The grubs which are eaten are practically always in the stage where they have turned bluish. Real meat is also consumed by bees. Whether they actually eat it I don't know, but consider it probable.

This is plenty for one time, and I hope the editor won't say "it is altogether too plenty."

Calif.

## Pin Money From Skunks

In your September, 1926, number, page 453, is a story entitled "A Skunk's Last Dinner," by L. Deimer. I would like to see if it would not pay the beekeeper to wait until the frosts of November come, and the bees are snugly packed away for the winter, then go on the warpath for those loud-smelling kitties, rather than place poison where any animal may get it, as well as skunks.

It would be well to remember that even a skunk is of value and is protected by law in some states. I have caught many hundreds of dollars' worth of fur bearers, and have derived much pleasure as well as profit from the little striped kitties. Sometimes the bees fail to pay profits as they have this year, but the fur bearers are always in evidence.

W. H. Brown.

### New Honey Poster

The United States Department of Agriculture has recently issued a new poster in colors showing honey in the comb in pound sections and in glass jars. The difference in color of honey from different sources is explained. The statement is made that honey is free from the germs of human diseases, that it is pure and wholesome and cannot be manufactured. If generally used, this poster will do much to extend the use of honey in homes where it is not now used. Statements made by a government bureau carry confidence where statements of a commercial honey producer might be doubted. Beekeepers interested should write to Mr. J. I. Hambleton, Bureau of Entomology, Washington, D. C., for information as to how these posters may be obtained.

### To Close the Entrance

When moving the hives, a quick and easy way to close the entrance is as follows: Cut a piece of wire fly screen a trifle longer than the entrance and one and a half inches wide. Fold it lengthwise in the middle, making a triangle. Push it carefully into the entrance and it will hold itself without fastening or nailing, yet leaving free ventilation.

A. Mottaz.

### Good Publicity

A recent issue of the Nebo, Illinois, Plaindealer contained a nice little story of bees and honey by T. X. L. Brokaw. Such reminders will do much to interest the consumers in honey for the table. With such a variety of foods clamoring for attention, the housewife is likely to overlook anything which is not frequently brought to her attention.

### Gwin in New Work

James I. Gwin, president of the Wisconsin Beekeepers' Association, has recently been appointed to a position in the State Department of Agriculture, where he will give especial attention to the grading and marketing of honey. Gwin is well known among Wisconsin beekeepers and should serve them well in this new capacity.

### Arkansas Bee Men Active

A recent letter from J. V. Ormond, State Apiarist of Arkansas, states that the apiary work in that state is proving popular. He says that county associations are being organized with great enthusiasm and since they really have something to do he looks for them to prove permanent.

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Shipping Weight 75 pounds

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**Use Alcohol—Formalin to be safe**

Ask your dealer or write to

**J. C. HUTZELMAN, Glendale, Ohio**

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A strain of Three-band Italians with a record for honey production in every section of the U. S. and Canada.

Many customers report averages of 150 to 300 pounds surplus per package. Extra liberal weight of young worker bees and vigorous young queens, delivered to you when you want them.

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Special price to first fifty who order five or more two-pound packages with select uncontested Italian queens.

Our eighteenth year with the bees

**THE CROWVILLE APIARIES**  
J. J. Scott, Prop. Crowville, La.

I wish to comment on the articles "Selling Honey," November number, pages 565 and 595, where you mention a small producer selling honey for about 8 cents per pound in ten-pound pails. It seems that you find the honey price cutters chiefly amongst the small producers. This no doubt is true to a large extent. But take it from me, friend editor, there are also some chicken-hearted, pussy-footed, weak-kneed, sissified large producing price cutters, and one such is a worse evil to the honey industry than a dozen small producers could ever be, because he has the facilities at hand with which to carry on his detrimental, disreputable work. This is how one such that I have in mind plays his game: He loads his auto truck to its capacity with honey at dawn of day and starts out on a hundred or more miles trip, stopping to give away honey at every town he comes to on his way, boasting as he goes along of the 700 colonies that he has and of the 210-pound average which he obtained this year. Oh! I mentioned about him giving his honey away. Now he does not do exactly that; he sells it, a ten-pound pail for 80 cents. And as far as I know, he is not having very good luck even at that. Well, I guess every person gets in this world just about what he deserves.

I know one beekeeper who shipped several thousand pounds of amber-colored honey for 6 cents per pound, he paying the freight on it, and after deducting transportation and container costs this honey did not bring him quite 4 cents per pound. Think of it! Twelve pounds of honey to pay for one pound of butter at the latter's present price. That certainly does not look right to me. Some say it was just amber-colored honey, anyway. So it was, the same kind of stuff for which local customers are giving 90 cents per five-pound pail, declaring it is very good and always coming back for more just like the last they got.

In no way do I censure a dealer for buying honey just as cheap as he can get it; that is his business. Besides, I give the dealer credit for offering only 1 cent per pound more for light-colored honey; in fact, I believe color should make no difference in the price of honey, and if it must, I think that that which has some color to it should demand the better price. While attending a school for auctioneers eighteen years ago, the head instructor called our attention to the selling effect that color makes in most articles of commerce. Place two dozen garden hoes

## More About Selling Honey

By Charles L. Ruschill

in a hardware store, have one dozen of the hoes gilt, the others in their natural color, and the gilt ones will sell twice as fast every time. Soft drinks with color sell the best. I found that out while working as a promoter for a bottling works several years ago. At that time I was discussing labels with one of the owners of the largest circus in this country, and he favored bright-colored labels with plenty of gilt or bronze printing on them. The red apple is a faster seller than the others. Just between you and me, Mr. Editor, I wonder if there is enough difference in the food value of a pound of good light-colored white clover honey and an equal amount of good amber-colored heartsease honey to affect a fly, let alone the average human being. It costs just as much to produce the one kind as it does the other. Therefore, I see no sense in trying to deceive the general public into believing that honey must have a certain color in order to be wholesome food. Among my customers some want one kind, some another, and to others color and even flavor seem to make but little difference so long as it is well ripened and has a heavy body; it all sells for the same price.

Mrs. Ruschill and I get along just fine, and not wishing any married people any bad luck, I sincerely wish that they would all get along with one another as we do; if they did, you would soon see signs placed over all of the divorce court doors reading, "Closed for the season." The reason we get along so well is because we agree on most everything, and where we disagree we know how to manage things to our entire satisfaction. Honey is one thing that we don't agree on. Wifey says the light-colored, mild-flavored is the best, while the fellow they call Daddy around here prefers the amber-colored honey, because he generally finds that to have a more pronounced flavor. The way we manage it so neither of us gets hurt over this matter is, whenever we sit down to eat a meal, and where the subject is apt to be discussed, we always sit at the opposite end of the table, away from one another, and have our two children as guards placed between us.

As the minister says, "just one more word": I well remember seven or eight years ago one of our prominent Canadian beekeepers was lamenting in one of our bee journals because the farmers in his locality were not sowing so much alsike clover as they formerly did, but were planting more sweet clover, the

honey of which had an olive-green cast and a minty flavor. He declared he did not think much of the sweet clover honey. A fellow better not whistle that kind of music nowdays. I saw recently where several ups in the bee business consider sweet clover honey equal to that from white clover. Things have sure changed since Hector was a pup.

### Honey In Cooking

By Elias Fox

I was pleased to read in December issue of American Bee Journal so much in regard to the use of honey in making bread, etc.

Of course, I am only a lone old man, but I do my own baking and cooking and have made honey bread for the past twenty-five years, and a part of that time I have used milk with the honey. It's truly said that this is a land flowing with milk and honey, so why not let a goodly portion of each flow into our bread and thus have a better flavored and more healthful and longer keeping article? I have also frequently used honey in making corn bread, buns, Parker House rolls, cake, cookies and doughnuts. To my taste they are finer flavored, keep moist double the length of time of those made with sugar, and are much more healthful. I have also used honey with baked beans, pork roast, spare ribs, etc., and for making apple and plum butter and pumpkin pies. They are simply delicious. I have even used honey in making ground-cherry preserves; in fact, I have used it in anything and everything where sugar is generally used, even in sweet pickles, for salt pork, and have also used it in tea and coffee, and today, and for several years back, the best doctors are directing their patients to use honey instead of sugar. There surely must be a reason.

It would mean a whole lot if just beekeepers would use honey as I have used it, or just in their bread-making alone. It also makes the choicest ice cream and lemonade. Try it, brother beekeepers, and be convinced.

Wisconsin.

### Illustrated Bee Story

In a recent issue of Farm and Orchard Magazine, issued as a supplement to the Los Angeles Sunday Times, appeared a feature story of the bee business of Ray E. Lusher, of Pasadena, Cal. The cover of the magazine is devoted to a large picture of a beekeeper with veil and smoker opening a hive. The words, "A Honey Farm," give a suggestive title to the front page. Inside a series of pictures show Mr. Lusher's apiaries, and there is also a short story of his business.

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Bees inspected; free from disease

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Two-pound pkgs. with select young queens: 1 to 24, \$3.50; 25 to 49, \$3.35; 50 to 100, \$3.10 each.

Three-pound pkgs. with select young queens: 1 to 24, \$4.50; 25 to 49, \$4.35; 50 to 100, \$4.10 each.

Queens, untested: 1 to 9, \$1.00; 10 to 24, 95c; 25 to 49, 90c; 50 to 100, 85c each.

Prompt, satisfactory service. Freedom from disease, health certificate with every shipment, and safe arrival guaranteed.

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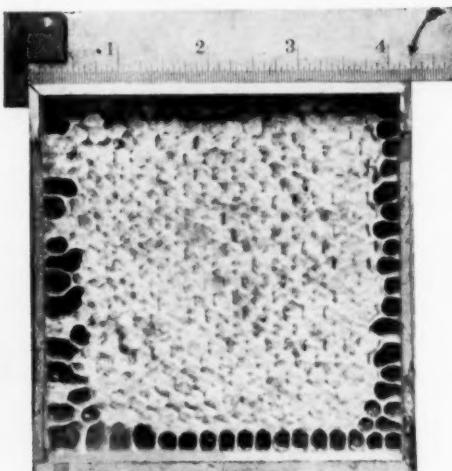
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"I have used about 15,000 of your sections in the last two years and like them fine. They fold square, with no breakage to speak of."

Hugh Carson, York, N. Y.

"Received the balance of order April 7, all in A-1 condition. Out of 2500 sections that I have just put together, have not broken any."

John F. Minster,  
Caledonia, N. Y.

## THE A. I. ROOT COMPANY



MEDINA, OHIO



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